

PlantSci Newsletter – a monthly round-up of plant science policy headlines and stories

May 2019

News

Top story

Defra supports Plant Health work at the RSB

As we approach IYPH2020, the International Year of Plant Health, two RSB projects are coming together funded by Defra in association with Fera Science Ltd and plant science consultant Dr Celia Knight. RSB team members who support provision of [Professional Registration for Plant Health Professionals](#) are Joanne Needham and Rosie Wakeham, while Jonathan Carruthers and Laura Marshall support the [Plant Health Undergraduate Studentships](#), which are delivered with funding from Defra, British Society for Plant Pathology, N8 AgriFood and the David Colegrave Foundation. Watch out for more on plant health through PlantSci and RSB newsletters.

Plant health and biosecurity

[Ash dieback: Killer tree disease set to cost UK £15bn](#)

[Olive tree killer disease still poses risk to Europe](#)

[Asian Longhorn Beetle eradicated in the UK](#)

The Asian Longhorn Beetle (ALB) has been eradicated in the UK following six years of trapping and surveillance work

[Plant health experts gather to strengthen Scotland's resilience](#)

An online, user-friendly plant health information resource will be launched at Scotland's first-ever Plant Health Conference, which is set to gather representatives from industry, public bodies, government and scientists, all around the common theme of how best to preserve Scotland's plant-based industries.

[Invasive Species Week: American skunk cabbage creates a stink](#)

Fifth annual Invasive Species Week promotes simple steps to stop the spread of invasive species which threaten Britain's plants and animals

[UK approach to Japanese knotweed 'overly cautious'](#)

The Science and Technology Committee has concluded that the current approach to Japanese knotweed is 'overly cautious' and more academic research is needed into its effects in the built environment.

[Enormous trees reinforce climate change message at Chelsea](#)

Garden on RHS showground highlights diversity and biosecurity as paramount to our future

[Bug hunt: Volunteers needed to spot insect's 'spittle'](#)

Tree-hugging biotech

Anthony King reports on progress towards controlling a new influx of recent tree pathogens, and asks: can biotechnology rescue forests from alien invaders?

Plant breeding

[14 EU countries call for 'unified approach' to gene editing in plants](#)

The Netherlands and Estonia are leading a coalition of 14 EU member states calling on the next European Commission to update EU GMO laws with regard to so-called new plant breeding techniques (NPBTs).

[Companies seek clarity on breeding innovation to stay in EU](#)

A number of breeding companies have promised to relocate their advanced mutagenesis breeding programmes outside Europe and others will follow if nothing is done to change EU rules, Garlich von Essen, the secretary-general of the European Seed Association (ESA), told EURACTIV.com in an interview.

[Russia joins in global gene-editing bonanza](#)

A US\$1.7-billion programme aims to develop 30 gene-edited plant and animal varieties in the next decade.

[GM field trials approved](#)

Five-year project will investigate field performance of plants making heart healthy oils

[High-Iron GM Wheat Trials Get Green Light](#)

Field trials of wheat biofortified to produce white flour with extra iron have begun following approval by the Government.

Agriculture

[The world needs topsoil to grow 95% of its food – but it's rapidly disappearing](#)

Without efforts to rebuild soil health, we could lose our ability to grow enough nutritious food to feed the planet's population

[Costly cancer lawsuits may spur search to replace world's most common weed killer](#)

The European Union has approved glyphosate use until 2022, but bad publicity is tainting its allure.

[The future of crop protection](#)

A new KTN report by EI's Head of Business Development & Impact, Dr Liliya Serazetdinova, discusses novel approaches for crop protection and highlights recent innovations from UK companies.

[The winter weather window that is costing UK rapeseed growers millions](#)

UK rapeseed growers are losing up to a quarter of their crop yield each year because of temperature rises during an early-winter weather window.

[Climate Change and Agriculture](#)

New POSTnote examines measures to reduce the impacts of food production and agricultural land use on climate change (mitigation) and to adapt agricultural land use to that change (adaptation).

[Scientists' hope of growing rare oat seeds 50 years on](#)

[Robocrop: world's first raspberry-picking robot set to work](#)

Autonomous machine expected to pick more than 25,000 raspberries a day, outpacing human workers.

Food security

[First comprehensive network of wild crop species will help breeders tackle food insecurity](#)

The first comprehensive network of sites where crop wild relatives are found has been developed.

[State of the art research meets breeding for wheat's future](#)

For over half a century, the International Wheat Improvement Network (IWIN), coordinated by CIMMYT, has been a global leader in breeding and disseminating improved wheat varieties to combat this problem, with a major focus on the constraints of resource poor farmers.

[Boosting nutrients in crops to beat 'hidden hunger' of poor diet](#)

Boosting the levels of micronutrients like zinc in popular grain crops could help to reduce a 'hidden hunger' experienced by millions of people across Europe and around the world.

[Protein replacement poses challenge for global agricultural systems](#)

Capacities for completely replacing animal protein in the human diet are limited and would require "major changes" in the structure of global agricultural food systems, according to new research.

Biodiversity and conservation

[Climate change being fuelled by soil damage - report](#)

[Humans are driving one million species to extinction](#)

Landmark United Nations-backed report finds that agriculture is one of the biggest threats to Earth's ecosystems.

[Plants at the heart of the latest call for Darwin Initiative bids](#)

The Darwin Initiative has re-opened for new projects to apply for funding on United Nations International Day of Biological Diversity.

[Saving species magnificent, new and on the brink of extinction](#)

Stunning gingers, exquisite begonias and one miniscule moss are in the incredible line-up of plant species described as new to science by leading experts at the Royal Botanic Garden Edinburgh (RBGE) over the last 12 months.

[Cornish hedges under threat from developers, say conservationists](#)

Structure of county's hedges mean they do not get same protection as those elsewhere

[British bluebells 'have advantage over Spanish bluebells'](#)

Forestry

[Government delivers new £10m fund to plant over 130,000 urban trees](#)

Environment Secretary Michael Gove announces grants will be made available over the next two years to green town and city spaces.

[Thousands of HS2 newly planted trees died in drought](#)

[Urban trees 'live fast, die young' compared to those in rural forests](#)

Unusual features of street-tree life cycles should inform urban greening campaigns

[Wood wide web: Trees' social networks are mapped](#)

Other news

[First review of 25 Year Environment Plan published](#)

The first progress report of the landmark 25 Year Environment Plan is published during the Year of Green Action.

[Science research programme launched to inform Defra policy making](#)

Defra appoints six new Academic Fellows to lead Systems Research Programme

[Millions 'lack access' to parks and green spaces](#)

People

[Innovator of the Year award recognises impact of international collaboration in wheat disease diagnostics](#)

Dr Diane Saunders has been named the 2019 BBSRC Innovator of the Year for international impact following her group's work on developing genomics-based approaches for rapid point-of-care fungal disease diagnostics.

Opinion

[Fix the broken food system in three steps](#)

Build a global network for mapping, modelling and managing agriculture, biodiversity, trade and nutrition, argue Guido Schmidt-Traub, Michael Obersteiner and Aline Mosnier.

[The idea that there are only 100 harvests left is just a fantasy](#)

Headlines warn that our soil is becoming so degraded that we are heading for an agricultural Armageddon. Can that be right?

[Risk and unnaturalness cannot justify EU's strict policy on GMO](#)

The EU's policy on GMO is extremely strict and prevents new GMO crops from being authorized.

Opportunities

[The British Ecological Society New Policy Committee chair](#)

The British Ecological Society (BES) is looking to recruit a new Policy Committee Chair who is committed to generating, communicating and promoting ecological knowledge and solutions. The remit of the Policy Committee is to develop and oversee the delivery of the Society's policy work.

Closes: 09 June 2019

Royal Society of Biology, Outreach and Engagement Volunteering Opportunities 2019

RSB are looking for local volunteers to help run our hands-on science plant growing activities Glasgow Science Festival 2019 at Glasgow Botanic Gardens on 8th June 2019, and Lambeth Country Show at Brockwell Park, London on: 20th - 21st July 2019. Please email Dr Amanda Hardy outreach@rsb.org.uk to volunteer.

[Community Resource for Wheat and Rice Transformation - application process open](#)

The Community Resource for Wheat and Rice Transformation is a resource for UK plant scientists to apply for their genes to be transformed into wheat or rice free of charge, funded by the BBSRC's Biological and Bioinformatic Resources fund (BBR). The current round of the application process is open until 24th June 2019 for transformation slots in the autumn. There is an online application form and further details on the [website](#). Enquiries should be directed to croptransformation@niab.com in the first instance.

Closes: 24 June 2019

[RSB Outreach and Engagement Award 2019](#)

Are you a bioscience researcher involved in science communication? If you work in any sector of UK biosciences, apply for the Royal Society of Biology Outreach and Engagement Award 2019 and win up to £1500.

Closes: 28 June 2019

[Opportunity to join the Science Committee](#)

NERC invites applications from across the NERC science remit, and from business and policy, to join its key scientific committee, which will bring broad strategic perspective and expertise to support the development and delivery of UKRI-NERC strategic priorities, investments and policies.

Closes: 1 July 2019

Pride in London Parade

6 July 2019

Royal Society of Biology is excited to be participating in the Pride in London Parade on Saturday 6th July. We have tickets to join our walking parade group and all RSB members are welcome to apply for a space via our [online ballot](#). The RSB actively works to increase the visibility of the LGBT community within the biosciences, to discuss and challenge the barriers LGBT scientists still face, and develop support networks for members of the LGBT community. You can read more about our equality and diversity work on [our website](#).

[Bacterial Plant Diseases](#)

BBSRC, on behalf also of the Department for Environment, Food and Rural Affairs (Defra), the Natural Environment Research Council (NERC) and the Scottish Government, announces a call for research to address threats to UK plant health and biosecurity from bacterial diseases. Proposals are invited for multidisciplinary and interdisciplinary studies of bacterial plant pathogens and their interactions with host plants, invertebrate vectors and the wider environment.

Closes 25 July 2019

[The Nancy Rothwell Award 2019](#)

The Nancy Rothwell Award 2019 specimen drawing competition for 7 – 18 year olds is now open for submissions. Prizes include an experience day at the [Royal Veterinary College](#) for students, and their school can also win £100. Visit the Royal Society of Biology [website](#) for more information.

Closes: 30 July 2019

Consultations

[BBSRC asks for community input on data intensive bioscience](#)

BBSRC is conducting a review of data-intensive bioscience research in 2019.

Closes: 10 June 2019

Events

[Art of Possible: The Future of Agriculture](#)

The event will feature a group of ground-breaking, inspirational innovators and knowledge experts in Scotland working creatively and collaboratively (across business, academia, and government) to drive the diffusion of disruptive technologies in the agriculture sector.

Edinburgh, 5 June 2019

MPs assess invasive species threat with Cambridge University outreach event

The Environmental Audit Committee is to take evidence at St. Catharine's College, Cambridge as part of its inquiry into invasive species.
Cambridge, 11 June

Report Launch, Technicians: Vital front-line support for student wellbeing & mental health

20 June 2019

Burlington House, London

A collaborative team from the Technician Commitment, Science Council, Royal Society of Biology, Institute of Physics, Royal Society of Chemistry, University of Liverpool and University of Nottingham recently undertook a national survey in order to shed light on the important roles technicians play in student mental health and well-being. The resultant report offers an unprecedented insight into the ways in which technical staff in higher education support student mental health and well-being.

Bacterial Plant Diseases: Town Meeting

BBSRC, on behalf also of the Department for Environment, Food and Rural Affairs, the Natural Environment Research Council and the Scottish Government, will soon be launching a call for research to address threats to UK plant health and biosecurity from bacterial diseases. The funders will be holding a Town Meeting to give potential applicants and stakeholders an opportunity to find out more about the background to the call and understand what the funders hope to support through it.

London, 21 June 2019

Plants, People, Planet Symposium

The inaugural Plants, People, Planet symposium will highlight outstanding plant-based research in its broadest sense and celebrate everything new, innovative and exciting in plant sciences that is relevant to society and people's daily lives.

Leading scientists and invited early career researchers will give talks based on seven broad themes: engaging people with plants, plants and society, plant conservation, plant diversity, plant genomics applications, plants and global change, and plant natural assets. Defra's Chief Plant Health Officer, Nicola Spence, and the Director of the Arnold Arboretum of Harvard University, Ned Friedman, will both give keynote talks. Each session will conclude with an engaging Q&A panel, and there will be a poster session and symposium dinner on site at Kew.

Travel grant submission deadline: Friday 14th June 2019

Posters abstracts submission deadline: Monday 8th July 2019

Royal Botanic Gardens, Kew, London, 4–5 September 2019

Plant responses to environmental stimuli: differences, similarities and crosstalk

This symposium, marking the 40th anniversary of Plant, Cell & Environment, will be a celebration of plant physiology. We offer delegates an exciting programme with an impressive line-up of speakers and tutors who will share with you their research and expertise at the forefront of modern plant physiology.

Glasgow, 4-6 September 2019

GARNet workshop on 'Advances in Plant Imaging'

This workshop will highlight uses of different imaging technologies across scales, from single molecule to whole organism techniques.

University of Warwick, 9-10 September 2019

[Plant Genomes in a Changing Environment](#)

The meeting will bring together plant scientists to discuss recent advances in the elucidation of gene function and networks. Topics will include analysis of natural and induced variation and their implications in crop genetic improvement.

Wellcome Genome Campus, Cambridge, UK, 16 - 18 October 2019

For the full events list, please see the [UKPSF website](#).

And finally...

[Chelsea flower show 2019 up close – in pictures](#)

Guardian photographer David Levene gives a slightly different treatment to the Royal Horticultural Society's annual show this year by photographing at macro level.

[Growing the future – a report from the UK Plant Sciences Federation \(UKPSF\)](#)

Launched in January 2019, *Growing the future* highlights to policymakers and others the excellence of plant science in the UK, and its importance to the biosciences, the economy, and society both at home and around the world. The report is available to download [here](#).

UK Plant Sciences Federation

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