

Plant Science Newsletter – a monthly round-up of policy headlines and stories

August 2021

This newsletter provides links to published news articles from a range of sources. Views or opinions presented are those of the original author(s) and do not necessarily represent the views of the Royal Society of Biology.

News and debate

Plant health and biosecurity

[Climate change ‘likely’ to cut tropics crop diseases](#)

SciDevNet reports on findings that risk of crop infections may fall in tropical countries, but yields will stall as temperatures will become too high for both crops and their pathogens.

[New Tree Health pilot to protect trees from pests and diseases](#)

The Forestry Commission announces a new scheme to protect trees from pests and diseases in England.

Plant breeding

[Approval granted for genome edited wheat field trial at Rothamsted Research](#)

Hertfordshire trial starting this autumn will see the first CRISPR-edited wheat grown in Europe, testing production of healthier grains.

[Philippines becomes first country to approve nutrient-enriched “Golden Rice” for planting](#)

Filipino farmers will become the first in the world to be able to cultivate a variety of rice enriched with nutrients to help reduce childhood malnutrition, after receiving the green light from regulators.

[FSA publishes research on different regulatory approaches to GM and novel foods.](#)

The study into international approaches explored several aspects of food safety regulation, including definitions, underlying legislation, authorisation processes and production standards.

Agriculture

[Farm pesticides killing more bees - study](#)

Agricultural pesticides sold to farmers ready-mixed into 'cocktails' can kill twice as many bees and should require their own licences, researchers warn in study reported by BBC News.

[Regenerative farming shift could reduce UK climate emissions, say experts](#)

Organic farming methods, which use fewer pesticides and store more carbon in soil, are becoming more popular, The Guardian reports.

[Green agri goals achievable but risk being undermined by carbon leakage – report](#)

The EU's sustainability goals in agrifood are achievable through reforms to the Common Agricultural Policy, but risk being undermined by weak trade policies, the European Commission's in-house scientists conclude, in a study reported by EURACTIV News.

[Experts: Deadly floods made worse by misguided farming practices](#)

German environmental organisations are calling for changes to agricultural practices after catastrophic flash floods killed more than 200 across Western Europe, EURACTIV News reports.

['Ten years ago this was science fiction': the rise of weedkilling robots](#)

The makers of robot weeders say the machines can reduce pesticide use and be part of a more sustainable food system, in an article in The Guardian.

Food security

[Reforestation hopes threaten global food security, Oxfam warns](#)

The Guardian reports on warnings from the charity that over-reliance on tree-planting to offset carbon emissions could push food prices up 80% by 2050.

[Global food supplies will suffer as temperatures rise – climate crisis report](#)

Rising temperatures will mean there will be more times of year when temperatures exceed what crops can stand, according to the Intergovernmental Panel on Climate Change report, described in The Guardian.

[Madagascar on the brink of climate change-induced famine](#)

Madagascar is on the brink of experiencing the world's first 'climate change famine' with tens of thousands already suffering "catastrophic" levels of hunger and food insecurity after four years without rain, BBC News reports.

Biodiversity and conservation

[Talks resume on global plan to protect biodiversity](#)

UN negotiators have resumed work on the text of world-wide plan to protect nature and species for the next decade, BBC News reports.

[The world's species are playing musical chairs: how will it end?](#)

Many communities aren't losing biodiversity, but ecosystems are changing rapidly and the future is far from rosy, Nature News explains.

[New approach to managing sand dunes brings plants back to life](#)

Traditionally, scrub has been allowed to swamp England and Wales's sand dunes, but now they are being set free, The Guardian reports.

[Thousands of hectares of vital peatland to be restored to help tackle climate change and protect biodiversity](#)

The Government announces over £16 million to be awarded through the first round of Natural England's Peat Restoration Grants.

Forestry

[Trees should be planted without plastic guards, says UK study](#)

Woodland Trust and National Trust trial sustainable alternatives to plastic protection for millions of saplings.

[Tree-planting: Why are large investment firms buying Welsh farms?](#)

Plans to encourage more trees to be planted in Wales are under fire for "destroying communities" in rural areas.

[Climate change: Families in Wales urged to plant more trees](#)

Families with gardens should plant more trees, according to the deputy climate change minister, as he admits 'we're way behind where we need to be' on tree-planting targets.

[Amazon: regrowing forests have offset less than 10% of carbon emissions from deforestation](#)

In an article in The Conversation, researchers describe a new finding that secondary forests across the Amazon are absorbing just 9.7% of the emissions created by the destruction of old-growth forests in the region.

Sustainability

[Flood prevention: Swansea University study reveals role of wetlands](#)

Wales' coastal wetlands provide more flood protection than previously thought, with key role for vegetation, BBC News reports.

Other news

[Coronavirus: What do we know about the artemisia plant?](#)

The World Health Organization (WHO) is to test a malaria drug on Covid patients, which is derived from the artemisia plant used in Madagascar.

['It could feed the world': amaranth, a health trend 8,000 years old that survived colonization](#)

Indigenous women in North and Central America are coming together to share ancestral knowledge of amaranth, a plant booming in popularity as a health food, reports The Guardian.

Opinion

[Should we genetically edit the food we eat? Two experts from different disciplines explore the issue](#)

The Conversation features a dialogue between molecular plant biologist Nicola Patron (Earlham Institute) and sociologist Catherine Price (University of Reading).

[Hedgerows are an overlooked climate solution](#)

The Guardian describes the benefits of hedgerows, which the Climate Change Committee recommends planting extensively.

Opportunities

[Emerging Technologies in Plant Science](#)

The latest issue of [Emerging Topics in Life Sciences](#) explores [Emerging Technologies in Plant Science](#). In recent years, an array of new technologies is propelling plant science in exciting directions. These tools come at a critical time; with an expanding global population and the need to provide food in sustainable ways, we as a civilization will be asking more of plants and plant biologists than ever before. Reviews in this issue include space: the final frontier - achieving single-cell, spatially resolved transcriptomics in plants, plant pest surveillance: from satellites to molecules, plant growth-promoting microbes - an industry view, and recent developments and potential of robotics in plant eco-phenotyping. Written for an interdisciplinary audience Emerging Topics in Life Sciences provide short and accessible reviews for all levels, with each issue focussed on a new, or growing key topic.

[Higher Education Bioscience Teacher of the Year Award](#)

Now open for nominations, the award aims to identify the UK's leading bioscience higher education (HE) teachers, recognising the invaluable role they play in educating and inspiring the next generation of biologists. If you know a bioscience lecturer who deserves recognition for their passion and ideas, encourage them to submit an application this year.

Closes: 30 November 2021

Consultations

[International Development Strategy: call for evidence](#)

The Foreign, Commonwealth and Development Office (FCDO) has opened a call for evidence as part of wider engagement with stakeholders on the International Development Strategy.

Closes: 6 September 2021

[Nature-based solutions for climate change](#)

The Science and Technology Committee (Lords) is investigating the role of nature-based solutions in mitigating climate change. The inquiry will consider how protecting, managing, and restoring natural ecosystems can reduce greenhouse gas emissions while providing co-benefits to people and nature.

Closes: 10 September 2021

[Review of the Water Industry National Environment programme \(WINEP\)](#)

The Environment Agency (EA) are seeking views on the review of the WINEP. They will use responses to the consultation to revise the WINEP methodology and WINEP roadmap which sets out plans for long term change. This information will help ensure the WINEP is developed and delivered consistently across England. They will publish the final version of the WINEP methodology and WINEP roadmap in Autumn 2021.

Closes 16 September 2021

[Reproducibility and research integrity: call for evidence](#)

The Science and Technology Committee (Commons) is seeking responses as part of its inquiry into reproducibility and research integrity.

Closes: 30 September 2021

[Reforming the framework for better regulation](#)

The Department for Business, Energy & Industrial Strategy (BEIS) is conducting a consultation to review the way the Better Regulation Framework operates to ensure it remains fit for purpose and delivers Government's regulatory strategy objectives.

Closes: 1 October 2021

[Independent review of research bureaucracy](#)

This call for evidence is seeking views on ways to substantially reduce research bureaucracy, primarily for the benefit of individuals and teams conducting research. Responses to this call for evidence will feed into the interim and final reports of the Independent review of research bureaucracy.

Closes: 1 October 2021

[Consultation on approach to beaver reintroduction and management in England](#)

Defra is seeking views on its proposed approach to further reintroductions of beavers in England and the management of the species in the wild. The consultation sets out our proposed approach, including in relation to future releases into the wild, current and future releases into enclosures and existing wild-living beavers.

Closes: 17 November 2021

[RSB Policy Resource Library online](#)

The RSB has created a searchable, digital library of more than 800 statements, responses, briefings and other policy resources produced by the RSB and our Member Organisations across the biosciences. This collection is freely and openly accessible to everyone, including members and non-members, through the [mySociety portal](#) (no registration necessary).

Events

[BSPP Plant Health Club](#)

These informal online meetings aim to facilitate open discussions and networking opportunities, focusing on a different theme each time. The meetings are primarily targeted at PhD students and early career researchers, but everyone is welcome. Upcoming sessions will focus on collaborative working and entrepreneurship.

8 September and 5 October 2021, 12:30-13:30

MO Twilight Meeting: Keynote address by Ottoline Leyser

An exclusive online Q&A event for representatives from our Member Organisations to hear from Professor Dame Ottoline Leyser CBE FRS FRSB, CEO of UKRI. This online event will give guests the opportunity to hear about the key priorities of the UKRI and engage with Dame Ottoline during a Q&A session. This event is only for trustees, committee members and senior leaders from RSB's full, supporting and affiliate [Member Organisations](#).

9 September 2021, 16:00 - 17:00

Policy Lates: Rethinking our food system

This free online event, chaired by Dr Simon Doherty FRSB FRCVS, will take place on Monday 4th October at 18:30. The panel of expert speakers will discuss the complex development of food policy nationally and internationally. The discussion will chart the balancing act this involves, bringing in needs for food security, reversing biodiversity loss and achieving net zero greenhouse gas emissions targets. Register to attend at www.rsb.org.uk/FoodPolicy and direct queries to Harriet McAra at events@rsb.org.uk or on 020 3295 3445.

Monday 4 October 2021, 18:30-20:15 BST

BSPP2021 – Our Plants, Our Future (OPOF) - Joint conference from BSPP and the EFPP

This major joint meeting, postponed from last year, will address scientific, practical and policy aspects of plant health. Inspired by the International Year of Plant Health (IYPH), the meeting is aimed at a wide audience, from plant scientists to plant health practitioners. This will be a fantastic opportunity at a premier conference centre to meet and mingle with colleagues from across Europe. Early bird tickets at a reduced rate are available until 30th September. The call for abstracts for speakers and posters is also open until 31st October.

Birmingham and online, 6th-8th December 2021

Due to the COVID-19 pandemic all RSB events will continue to take place online and updated information will be made available on the [RSB events pages](#). We recommend also checking other external event webpages for updates and continuing to monitor and follow official advice.

And finally...

This meat-eating plant is only a part-time killer

An alpine species uses sticky hairs to trap and digest insects, but only when it's flowering.

Growing the future report

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](#).

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