

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

## September 2024

This newsletter provides links to published news articles, preserving the original title and summary line. 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

## **RSB** news

# RSB recommends bringing everyday experiences to the classroom to engage children with science

Eating ice Iollies, making noise, and planting vegetables are essential primary science lessons, say the Royal Society of Biology, Association for Science Education, Royal Society of Chemistry, and Institute of Physics.

## Plant health and biosecurity

## Easement of import checks on medium-risk fruit and veg extended

The government has extended the easement of import checks on medium-risk fruit and vegetables imported from the EU from January 2025 to 1 July 2025, meaning these products will not be subject to import checks at the border or charged the associated fees until this date.

#### Plant disease could spell apocalypse for citrus fruits

Writing for the Conversation, Raphael Morillon, Barbara Hufnagel, Patrick Ollitrault, and Virginie Ravigné, from CIRAD, discuss the threat posed to the citrus fruit industry by the plant disease Huanglongbing (HLB).

## Plant breeding

## Scientists looking forward to first farmer-led trials of gene edited crops in Europe

This article by Rothamsted Research says that the institution will take part in the UK and Europe's first trials of gene edited (GE) crops on conventional farms.

# Australia's first genetically modified fruit is ripe for a taste test. Could it avert a global banana apocalypse?

Writing for the Guardian, Joe Hinchliffe discusses the development of a genetically modified banana variety which aims to improve disease resistance.

## Could 'super potatoes' save the tattie industry?

BBC News reports on work being done developing new potato varieties which could save the Scottish potato industry from collapse.

## **Agriculture**

## Defra set to surrender £100m ELM underspend to Treasury

Farmers Weekly reports that Treasury officials are seeking a £100m cut to the farming budget in England to help address a £22bn shortfall in the public finances.

## Frequency and duration of soil moisture droughts set to increase under climate change

The UK Centre for Ecology and Hydrology reports that extreme soil moisture droughts in the UK – those lasting 90 days or more - are expected to occur more frequently under climate change, potentially having severe implications for farming, water availability and food security.

## Al can slash indoor farming energy use

This Science Daily article highlights research showing that integrating artificial intelligence into today's environmental control systems could reduce energy consumption for indoor agriculture by 25% - potentially helping to feed the world as its population rises.

## Corn sweat: crop moisture amplifies humidity and heat in US midwest

Moisture from crops is driving up already high humidity in areas where 55 million people are under extreme heat alerts, reports the Guardian.

## **Food security**

#### National alternative protein innovation centre launches

UK Research and Innovation (UKRI) reports that UKRI, the Biotechnology and Biological Sciences Research Council (BBSRC) and Innovate UK have invested £15 million in a new National Alternative Protein Innovation Centre (NAPIC), which hopes to bolster the alternative proteins sector in the UK.

## **Biodiversity and conservation**

## National parkland in public hands 'would help nature'

Campaigners have said that restoring nature in the UK's national parks is being held back because nearly 90% of their land remains in the hands of private owners, reports BBC News.

#### 5 lessons to level up conservation successfully

Conservation needs to scale successfully to protect nature. A new paper by researchers at Imperial College London takes lessons from around the world to show how that might be done.

## Push to identify 'priority ponds' in UK that are refuges for plants and animals

Experts say that more than one in five ponds in the UK could be designated as "priority habitats" but only about 2% have been identified so far, reports the Guardian.

## **Forestry**

## Global timber supply threatened as climate change pushes cropland northwards

A new study has found that climate change will move and reduce the land suitable for growing food and timber, putting the production of these two vital resources into direct competition, reports Science Daily.

## How we discovered a new type of wood - and how it could help fight climate change

Writing for the Conversation, Raymond Wightman, Imaging Core Facility Manager at the Sainsbury Laboratory, University of Cambridge, and Jan Łyczakowski, Postdoctoral Research Fellow in Plant Biotechnology at Jagiellonian University, discuss their work discovering a third type of wood category in trees, known as 'midwood'.

#### Profits from community windfarm to fund a million native trees in Hebrides

The Guardian reports on a project aiming to plant at least a million native trees on crofts in the Outer Hebrides, with more than 200 small new woods already started across the islands.

## **Business and industry**

## Projects funded to stimulate nature positive investment

Six innovation projects that use data and AI to make environmental monitoring and investment easier have won grants from Innovate UK totalling £2 million, reports UKRI.

## Sustainability

## Agrivoltaics: helping both farmers and climate

Euractiv highlights a report suggesting that central Europe could produce up to 191 TWh of electricity annually from solar panels installed alongside agriculture.

## How 'green' electricity from wood harms the planet — and people

Nature News reports that although many nations have embraced burning wood pellets to produce electricity under the assumption that it is carbon neutral, research shows this approach can boost greenhouse-gas emissions and threaten the health of local communities.

## Other news

#### Self-medicating gorillas and traditional healers provide clues for new drug discovery

Research has found that four plants consumed by wild gorillas in Gabon and used by local communities in traditional medicine show antibacterial and antioxidant properties, reports Science Daily.

## **Opportunities**

## **Plant Health Professional Register**

Those working in plant health are encouraged to apply for the RSB's <u>Plant Health</u> <u>Professionals Register</u>, which was created in partnership with Defra to recognise individuals with skills and experience that align with the current <u>Plant Biosecurity Strategy for Great Britain</u>. You are also invited to join our <u>Plant Health Professionals LinkedIn network</u> where you can explore and share job opportunities, events and more.

## **RSB Policy Internships**

The RSB annually hosts two policy internship positions for current PhD students who are funded by <u>AHRC</u>, <u>BBSRC</u>, <u>ESRC</u>, <u>EPSRC</u>, <u>MRC</u> and <u>NERC</u>. The successful applicants will each spend three months working at the RSB within our education or science policy teams, in 2025. Interns will work fully remotely, with the opportunity for funded travel to join in-person events. Start and end dates can be negotiated as appropriate.

Closes: 2 October 2024

## Join the FSA's Science Advisory Committees

The <u>Food Standards Agency (FSA)</u> is inviting applications for new members to join the Science Council, Science Advisory Committees (SACs), and Joint Expert Groups (JEGs). These committees play a crucial role in guiding the FSA's priorities and ensuring that advice to consumers is accurate and based on solid scientific evidence. The FSA is an independent, non-ministerial department committed to safeguard public health and protecting the interests of consumers in relation to food.

Closes: 7 October 2024

## Applications for Defra Plant Health Register of Reviewers

The Defra Plant Health team are inviting experts in plant health to join their Register of Reviewers, to carry out important peer review activities to support the high-quality research that Defra funds. They are looking to include a broad range of plant health professionals on their register, and welcome individuals with a range of experience such as early career researchers, industry professionals and academics to apply. More information is available on the <a href="Plant health portal here">Plant health portal here</a>. You can apply to become a reviewer by <a href="Completing this short form">completing this short form</a>. A call for applications will remain open until they have a sufficient breadth of expertise.

## **STEM for Britain poster competition 2025**

STEM for Britain, the annual poster competition for early-career research scientists, engineers, and mathematicians, is now open for registration! Organised by the Parliamentary and Scientific Committee, in collaboration with organisations across the sector including the Royal Society of Biology, this event is an opportunity for early career researchers to present their research to experts and policymakers in the Houses of Parliament. The **deadline to apply is 17:00 on 25th November 2024**. Find out more and submit your application <a href="https://example.com/here">here</a>.

## T-level placement resource

T Level in Science is a new qualification that's helping to develop the workforce of the future. It's designed to help students gain hands-on skills and work experience— and part of that is a work placement. This resource is aimed at employers and explains how T Level Science students can help you secure the skilled, committed workforce your business needs. It also addresses concerns employers may have about taking on a placement, offers science-specific examples from existing placements, and explains how a placement could work in your organisation. **Download the resource here**. Printed copies can be posted to you on request – please email registers@rsb.org.uk if you would like a printed copy.

## **Consultations**

## **BBSRC Forward Look for UK Bioscience 2024: Community Consultation**

The Biotechnology and Biological Sciences Research Council (BBSRC) has launched its 2024 community consultation. This document will underpin BBSRC's strategic direction over the coming decade. Through consultation, BBSRC hopes to deepen its understanding of the current drivers of bioscience research and innovation. BBSRC wants to hear from anyone who forms part of this community, whether you work in research and innovation or are a business owner, a policy professional, a public engagement specialist, an end user of bioscience or an interested member of the public.

Closes: 20 September 2024

# How can we shape investments in places to maximise national, regional and local impact?

UKRI is preparing an investment strategy for places, which will set out at a high-level how UKRI investment will be informed by opportunities in places across the UK. As part of this, UKRI are asking for input to a short survey, seeking perspectives from those involved in public or community engagement with research in the UK.

Closes: 26 September 2024

#### **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**

## Biology Week & Plant Health Series: Behind the scenes at Kew Gardens

10 October 2024

10:30 - 15:30

## Royal Botanic Gardens, Kew, Richmond TW9 3AE

Join the Royal Society of Biology for a visit to the <u>Royal Botanic Gardens</u>, <u>Kew</u>, one of the UK's most impressive and important botanical research institutions that houses the 'largest and most diverse botanical and mycological collections in the world', for an event as part of the <u>RSB Plant Health Series</u>. Attendees will hear from a series of expert speakers, including representatives from the <u>Centre for Forest Protection</u> who will be discussing their ongoing projects, as well as an overview of genomic and tree health research taking place at Kew.

## **UK Fungus Day**

UK Fungus Day is an annual celebration of our fungal world, brought together by the British Mycological Society. This year, fungus-focused events, activities, exhibitions and competitions are taking place across the UK and online on and around **Saturday**, **5th October**. Discover more about fungi and find out what's on <a href="https://example.com/here">here</a>.

## Biology Week: It's a Wild Life - Tales from Television

7 October 2024 15:00 - 16:00

Online

In this talk, award-winning television presenter George McGavin shares his personal journey to discover the world of wildlife - big and especially small. This event would be of interest to scientists, budding biologists, entomologists, science communicators, and anyone interested in natural history careers.

## Plant Biology Education: Creating a Vision for the Future

7 January 2025 – 8 January 2025

## **University of Lancaster**

This collaborative meeting aims to build a strong, inclusive community of plant biology educators across the UK and beyond. This meeting has a primary focus on plant biology teaching in Higher Education, but will also be of interest to high school/college biology teachers and those delivering plant biology education and training in professional contexts. The meeting will focus on nurturing the next generation of plant biologists, recognising the critical role plant science plays in tackling global challenges. By fostering collaboration and sharing best practices, educators in higher education can develop a shared vision for the future of plant science education in the UK. This includes exploring ways to attract a diverse range of talent, prepare students for a variety of careers, and integrate cutting-edge technology into the higher education curriculum. Ultimately, this collaborative effort will work towards a future filled with well-equipped plant biologists ready to solve the pressing issues facing our planet.

## And finally...

## Century-old experiment secures beer and whiskey's future

Science Daily reports that, thanks to an experiment started before the Great Depression, researchers have pinpointed the genes behind the remarkable adaptability of barley, a key ingredient in beer and whiskey. These insights could ensure the crop's continued survival amidst rapid climate change.



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