





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

**July 2019** 

### **News**

### Top story

## Prime Minister recognises UK biosciences as "extraordinary" and calls for reform for GM regulation

Speaking in Downing Street, Boris Johnson stated: "Let's start now to liberate the UK's extraordinary bioscience sector from anti genetic modification rules and let's develop the blight-resistant crops that will feed the world."

## Plant health and biosecurity

Oak processionary moth pest discovered on Cardiff trees

Toxic processionary caterpillar plague spreads across Europe

#### Tighter restrictions on oak tree imports come into force

Tighter measures on the import of oak trees come into force in England to protect the country against oak processionary moth

#### New legislation to prevent harmful rose virus

New legislation introduced to prevent harmful rose virus arriving in the UK

#### Armyworms are devastating Asia's crops, but we have a plan to save them

A very hungry caterpillar is rampaging through crops across the world, leaving a trail of destruction in its wake.

### Plant breeding

## <u>CRISPR conundrum: Strict European court ruling leaves food-testing labs</u> without a plan

Scientists struggle to detect the unauthorized sale of gene-edited crops whose altered DNA can mimic natural mutations.

#### European science community urges rethink on genome editing

Scientists from The Sainsbury Laboratory and the John Innes Centre joined colleagues from across Europe in calling for an urgent rethink of legislation restricting use of genome editing technology.

#### Organic farmers oppose separate framework for new plant breeding techniques

Any attempt to exclude the so-called new plant breeding techniques from the GMO legislation would deal a severe blow to consumers, farmers and processors, according to the EU organic farmers' movement (IFOAM).

#### To feed its 1.4 billion, China bets big on genome editing of crops

#### Study highlights nitrogen efficiency gains in corn hybrids over 70 years

During the past 70 years, hybrid corn varieties have increased both yield and nitrogen use efficiency at nearly the same pace, largely by preserving leaf function during grain filling.

### **Agriculture**

#### True cost of cheap food is health and climate crises, says commission

Radical change needed to make UK food and farming system sustainable within 10 years

**Brexit: EU subsidy loss 'could wipe out farms'** 

**Brexit: Farmers could be paid to protect the environment** 

Cambridge University tests robot to harvest lettuces

#### Study shows costs of reseeding permanent pasture

Inclusion of clover provides only real benefit with minimal yield improvement and climate implications

Micro-naps for plants: Flicking the lights on and off can save energy without hurting indoor agriculture harvests

## **Biodiversity and conservation**

#### Why are England's roadsides blooming?

## <u>Wildflower verges designed to help bugs could backfire because councils are using non-native species, charity warns</u>

Councils attempting to plant eco-friendly wildflower verges could be inadvertently harming butterflies, beetles and bees, a charity has warned, because they are sowing foreign seeds.

#### Welsh conservation scheme brings back wildflowers

## Rare butterflies and orchids on abandoned wildlife site boosted by Natural England funding

Common Moor SSSI is officially brought into a recovering condition, following improved site management for the rare Culm grassland.

### Government sets out vision for a safe and biodiverse railway lineside

Network Rail strategy to protect and enhance the UK's lineside environment released.

#### Protect mangroves and help tackle climate change

Environment Minister of State Thérèse Coffey marks International Day for the Conservation of Mangroves by calling for greater protection for mangroves.

### **Forestry**

Climate change: Trees 'most effective solution' for warming

Climate Change: What is being done around the world to plant trees?

Ethiopia 'breaks' tree-planting record to tackle climate change

#### Online calculator shows how trees improve air quality and reduce health costs

A new interactive online tool is set to encourage tree planting initiatives across the UK. It calculates how much pollution would be removed by planting trees in local areas, as well as the corresponding public health cost savings.

Climate change: Tree planting rise 'needs to happen quickly'

Climate change: Cornwall Council reveals £30m forest plan

#### Forestry Minister: We are committed to future of our woodlands

Minister Rutley addressed forestry stakeholders on the importance of tree planting in Northumberland.

#### The wrong kind of trees: Ireland's afforestation meets resistance

Residents and campaigners say fast-growing Sitka spruces are spoiling the landscape

'Football pitch' of Amazon forest lost every minute

#### Other news

#### Battle for clean air is sending our gardens to new heights

More living walls are being created in cities to tackle pollution, but keeping them alive can be a major challenge

Cigarette butts in soil hamper plant growth, study suggests

## **People**

#### **New Defra Chief Scientist appointed**

Professor Gideon Henderson has been appointed the new Defra CSA

## **Opinion**

## Radical change is needed to ensure farms produce healthy food. MPs must act now

A government report shows how the pesticide industry prioritises profit over our health and the planet

#### Science helps us to produce cheap and plentiful food

Readers give their views on the effects of pesticides on farming and the environment

### <u>Weeding, writing and arithmetic...</u> why green fingers are good for our children Schools should teach pupils gardening skills to instil a passion for the environment in future generations, says horticultural chief

#### Has Europe lost the new biotechnology battle?

The EU's rules on GMOs risk stifling innovation in biotechnology and could lead to China and the US increasing their patent domination, writes Marcel Kuntz.

#### Group of biologists tries to bury the idea that plants are conscious

Environmental crisis clouding scientific objectivity about plants' feelings, says botanist

## **Opportunities**

#### **RSB Accreditation Officer**

The Accreditation Officer will join a small dedicated team, managed by the Head of Accreditation. The successful candidate will help to ensure that the objectives in the RSB three-year business plan are met, with an emphasis on facilitating accreditation applications, including attending site visits as a Society representative and note-taker. This role will require a reasonable amount of UK travel, some international travel, and nights away from home. To apply, create a <a href="mySociety">mySociety</a> account with a CV (2 page max) and covering letter (1 page max) outlining your suitability for the role. Closes: 9 August 2019

#### **RSB Policy Internships**

The RSB has two internship positions available for current PhD students who are funded by <u>AHRC</u>, <u>BBSRC</u>, <u>EPSRC</u>, <u>ESRC</u>, <u>MRC</u>, and <u>NERC</u>. Successful applicants will spend three months working at the RSB in Central London in 2020. Start and end dates can be negotiated as appropriate.

Closes: 12 August 2019

## <u>Challenge: How might we use technology to make better use of Scotland's valuable but limited supply of high quality tree seed?</u>

The hunt is on to find to find the person, company or business that can help tackle an ages old problem: how to get more of Scotland's tree seeds to grow into trees! The technical challenge has been laid down by Forestry and Land Scotland (FLS) as it prepares to take advantage of a bumper crop of seed from all of the major forestry species and step-up Scotland's response to the global climate emergency. The most promising proposals will win £3000 development funding and support. Some of these will then be selected to benefit from a further £20,000 funding for prototype development, and a chance to benefit from up to £485,000 funding for field tests.

Closes: 21 August 2019

## **Consultations**

#### **Invasive Species Order 2019: consultation opens**

The Government has confirmed the implementation date of the Invasive Alien Species (Enforcement and Permitting) Order 2019.

Closes: 12 September 2019

#### Call for evidence on the use of genome editing in farmed animals

The Nuffield Council on Bioethics has launched a call for evidence to inform its inquiry into the use of genome editing techniques in farmed animals. The RSB response to this consultation is currently in draft. Please contact <a href="mailto:consultation@rsb.org.uk">consultation@rsb.org.uk</a> for more information and if you would like to contribute.

Closes: 20 September 2019

## Adding folic acid to flour Closes: 9 September 2019

### **Events**

#### **Bioscience Careers Day 2019**

Are you a current or recent bioscience student? Buy £10 Bioscience Careers Day tickets, for the opportunity to hear experts give top tips on the exciting careers available to you with a bioscience degree, sharpen your interview technique with a practice interview and network with a variety of organisations, biology professionals and other students from across the UK.

To register your place and for further information, please visit <a href="https://bcd.rsb.org.uk">https://bcd.rsb.org.uk</a> or contact Harriet McAra at events@rsb.org.uk

#### El Innovate: genomics data to advance bioscience

This event will showcase capabilities and expertise in genomics, bioinformatics, synthetic biology, crop phenotyping, and high-performance computing. This expertise allows us to understand complex biological systems in plants and animals and their interaction with the environment, which can help to develop solutions to industrial challenges in global food security, improving human, animal and plant health, and aid conservation.

13 November 2019, Earlham Institute, Norwich

## <u>Apples in a Warmer World – a visit to the climate change trial at Brogdale</u> Collections

The tour will visit the bespoke 0.6 ha facility – three triple span polythene tunnels, with more than 15 different varieties of apple trees planted within, showing how the nine different modified environments are achieved.

In addition to an in-depth look at the climate change trial, the tour will also cover the other fruit collections held at Brogdale and show participants the breadth of the collections there.

Brogdale Collections, Kent, 14 August 2019

#### **SCI Horticulture Group David Miller Awards**

Hosted by RHS Wisley this year, we are delighted that Alistair Griffiths, RHS Director of Science and Collections will be giving an introductory talk for the event. Subsequent talks will be by the 2019 winners, plus follow up talks from the 2018 winners.

There will also be a guided tour as well as free time for attendees to explore the gardens at Wisley.

Woking, 14 October 2019

For the full events list, please see the **UKPSF** website.

## And finally...

Mystery 'tequila plant' agave to flower in Cambridge after 57 years

#### **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.

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