

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

July 2017

### **News**

#### **Plant health and biosecurity**

##### **[Data from amateur naturalists can improve quality of predicted disease distributions](#)**

A new study concludes that members of the public can accurately report disease outbreaks affecting our native trees and that by combining their findings with official survey effort better quality predictions of disease distributions can be made.

##### **[Global trade networks are the key to distribution of invasive non-native species](#)**

Scientists at the Centre for Ecology & Hydrology (CEH) have conducted an analysis of invasive non-native species occurrence.

##### **[Sweet Chestnut Blight found in East London](#)**

The Chief Plant Health Officer has confirmed that Sweet chestnut blight has been found in East London.

#### **Agriculture**

##### **[Africa agriculture pioneer wins 2017 World Food Prize](#)**

##### **[When deciding a nation's future, politicians play with their food](#)**

In the UK and abroad, the political events of the past year prove that politicians are willing to gamble with the health, prosperity, and fate of our food systems.

##### **[Science for Defra: Uniting food and farming and the natural environment](#)**

How can the food and farming sector adapt to the challenges it faces, including EU exit, climate change, increasing global demand for food and the obesity crisis?

##### **[Largest-ever study of controversial pesticides finds harm to bees](#)**

The largest study so far on the fraught question of whether neonicotinoid pesticides harm bees is providing new ammunition for those who argue against the use of the controversial chemicals.

## Food security

### [Study highlights ecological steps to help ensure global food security](#)

A new study, led by Centre for Ecology & Hydrology (CEH) scientists, calls for ecological measures to ensure sufficient and nutritious food supplies for a growing global population despite the challenges of climate change and land degradation.

### [UK 'sleepwalking' into food insecurity after Brexit, academics say](#)

Study attacks complacency after years of stable food supplies and prices, saying lack of policy 'suggests chaos unless redressed'.

### [Maize, rice, wheat: alarm at rising climate risk to vital crops](#)

Governments may be seriously underestimating the risks of crop disasters occurring in major farming regions around the world, a study by British researchers has found.

## Forestry

### [Using forests to manage carbon: a heated debate](#)

The best way of managing trees and forests for climate change and accounting for contributions of forests and forestry activities in carbon budgets remains hotly contested.

## Biodiversity and Conservation

### [State of the World's Plants 2017](#)

This is the second annual report in which we have scrutinised databases, published literature, policy documents, reports and satellite imagery to provide a synthesis of current knowledge on the world's plants.

### [Europe's contribution to deforestation set to rise despite pledge to halt it](#)

Europe's consumption of products such as beef, soy and palm oil could increase its contribution to global deforestation by more than a quarter by 2030, analysis shows.

### [The Amazon's new danger: Brazil sets sights on palm oil](#)

Brazil's ambition to become a palm oil giant could have devastating social and environmental impacts if the move is not carefully managed, say experts.

### [Research values soil's natural capital](#)

Soil scientists at the Centre for Ecology & Hydrology (CEH) have set out a Europe-wide framework for developing a natural capital accounting structure for soil which considers the impact of land use change, climate change and pollution.

### [Report shows Welsh countryside improvements](#)

Evidence from over 50 indicators collected in a major field survey campaign suggests there have been many improvements in the Welsh countryside for people and nature over the last 30-40 years.

## Sustainability

### [Biofuels needed but some more polluting than fossil fuels, report warns](#)

Royal Academy of Engineering report backs increased use of biofuels but says more should come from waste rather than food crops.

### [Rising carbon dioxide is making the world's plants more water-wise](#)

Land plants are absorbing 17% more carbon dioxide from the atmosphere now than 30 years ago, new research shows. Equally extraordinarily, the study also shows that the vegetation is hardly using any extra water to do it, suggesting that global change is causing the world's plants to grow in a more water-efficient way.

## Other news

### [Botany may be dying ... but somehow the plants survive](#)

Suburban London is filled with greenery and lush growth; record crop harvests appear possible across Europe, and nothing too scary has been reported on the UK plant health risk register for some time either – so why the doom and gloom about plants?

### [So what do you think CRISPR cabbage might taste like? CRISPR-crispy? Altered in some way?](#)

Participants at the recent Society for Experimental Biology/Global Plant Council New Breeding Technologies workshop in Gothenburg, Sweden, had a chance to find out, because in Sweden CRISPR-produced plants are not captured by the country's GMO regulations and can be produced.

### [On Thoreau's 200th birthday, a gift for botany](#)

Harvard University Herbaria posting digital images of Concord specimens

## Opportunities

### [Pre-announcement: Sustainable Agriculture for Sub-Saharan Africa \(SASSA\)](#)

A call for collaborative proposals to address research challenges relating to the sustainable intensification of agricultural systems in sub-Saharan Africa will shortly be announced. This is part of the Global Challenges Research Fund which requires projects to meet Official Development Assistance criteria alongside their scientific objectives. The focus of the call is on farming systems, and their interactions with the environment, including the benefits derived by agriculture from other ecosystem services and its consequences for the natural capital on which it and they depend. Call opens 4 September 2017. Application deadline November 2017.

### [New flexible training opportunities for agri-food professionals from the AgriFood Training Partnership](#)

Today [7 July] marks the launch of the new AgriFood Training Partnership (AFTP) which builds on the heritage of the three previous Advanced Training Partnerships (ATPs) in agri-food, food and pasture. These three partnerships were all funded by the Biotechnology and Biological Sciences Research Council (BBSRC) with the primary aim of translating cutting edge research into applied industry expertise with the agri-food sector. Collectively since 2012, the ATPs have delivered short course training and postgraduate qualifications to over 1500 individuals from more than 700 businesses.

## [Plant biochemistry article collection](#)

Drawn from across the Portland Press portfolio, this collection includes research and reviews relating to the cellular, signalling or metabolic function of plants, including, but not limited to, photosynthesis, nitrogen fixation, cell walls, organelles, growth and development, and disease.

## Consultations

### [The future of UK Life Sciences - Lords Committee launches a new inquiry](#)

The House of Lords Science and Technology Committee launches an inquiry into Life Sciences and the Industrial Strategy. The Committee is inviting written evidence on the issue, to be received by Friday 15 September 2017, and will start taking oral evidence on the inquiry in October. The RSB is seeking to collect comments and opinions from the biosciences community on key questions related to the new Life Sciences Strategy. Any members interested in obtaining further information, or contributing specific comments related to this consultation, are welcome to contact us [here](#).

## Events

### [Next steps for UK food labelling policy and opportunities post-Brexit](#)

12 September, London

Delegates will discuss the future of food labelling regulation in a changing food retail market, particularly focusing on the rise in popularity of online grocery shopping, the growth of third-party delivery services, and the position of the out-of-home food sector.

### [Priorities for UK food security post-Brexit: investment, innovation and policy](#)

21 September 2017, London

This seminar will examine the priorities for UK food security in a post-Brexit context - and how policy and industry practice will need to respond to the challenges and opportunities.

### [Developing Sustainable Bioenergy Crops for Future Climates](#)

24-27th September 2017, Oxford

You are welcome to join us at Bioenergy 2017. This meeting will bring together researchers, breeders, growers and policy makers who are concerned with the development of new bioenergy crops for future climates. Knowledge in this area will be brought together in this meeting and recent advances which are being used to unravel these complex responses will be discussed.

### [SEB-GARNet Symposium: From Proteome to Phenotype: role of post-translational modifications](#)

11-13 December, University of Edinburgh

This symposium aims to provide its participants with enhanced understanding and appreciation for the role post-translational protein (PTMs) modifications play in shaping phenotypical traits, particularly in plants. This timely topic is of interest to a wide range of scientists working with both plants and non-plant organisms.

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

## And finally...

### [Tomato plant defences drive pests to cannibalism](#)

Tomato plants have a novel defence against caterpillars that eat them: they make their tissue so unappealing that caterpillars opt instead for cannibalism.

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Please note that any views or opinions presented in this email are solely those of the author and do not necessarily represent those of the Royal Society of Biology.