





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

May 2017

News

Top story

State of the World's Plants 2017

Plant health and biosecurity

Fixing the tomato: CRISPR edits correct plant-breeding snafu

Geneticists harness two mutations — each cherished by breeders, but detrimental when combined — to improve on 10,000 years of tomato domestication.

Agriculture

Genome editing technique: CRISPR-Cas9 and its role in agriculture

There's a new kid on the block of scientific breakthroughs with potentially revolutionary applications: the CRISPR-Cas9 genome editing system. But what is it, how might it be applied in agriculture and what are the implications of this application?

Government statistics inadequate for the needs of agriculture

The Environment, Food and Rural Affairs Committee publishes its report into the agriculture and horticulture labour markets.

Brexit: agriculture report published

The EU Energy and Environment Sub-Committee publishes its report which investigates the implications of Brexit for UK agriculture and food, particularly the implications of leaving the EU's Common Agriculture Policy and the Single Market.

Brexit and the coming food crisis: 'If you can't feed a country, you haven't got a country'

Britain's food production depends on seasonal migrant labour from the EU. What will happen to those workers after Brexit? And how will it change the industry?

Forestry

Modernising forestry

Forestry and Land Management Bill introduced to parliament. The Scottish Parliament will consider forestry legislation for the first time in its history after the introduction of a Forestry and Land Management (Scotland) Bill.

Food security

Research for a sustainable global food system

Feeding the growing human population is of course an absolute necessity.

Britons throw away 1.4m edible bananas each day, figures show

Government study says £80m worth is discarded every year – sometimes simply because of a minor bruise or black mark.

Science for Defra: For good food and farming policy in the UK, connections are key

Brazil's archaeologists join fight to preserve country's ancient lands

Brazil's archaeologists have lined up alongside conservationists and indigenous rights campaigners to protest against government proposals that they see as a threat to precolonial cultural heritage as well as forests, native communities and biodiversity.

Conservation and biodiversity

Bumblebees: Pesticide 'reduces queen egg development'

Garden centres selling 'bee-friendly' plants laced with pesticides that harm them, study finds

Just two of the 29 plants tested contained no insecticide or fungicide.

New techniques for peatland restoration

Restoration of peatland is increasingly seen as a valuable and cost-effective way to help limit climate change, but some afforested peatlands have seemed impossible to restore due to underground cracks that drain away water.

Arctic stronghold of world's seeds flooded after permafrost melts

No seeds were lost but the ability of the rock vault to provide failsafe protection against all disasters is now threatened by climate change.

New types of coffee, parsnips and roses among 1,700 plants discovered last year

From a new variety of Turkish parsnip to Madagascar coffee beans, the discoveries offer the prospect of better crops, medicinal uses and new garden displays.

Trees in eastern US head west as climate changes

Breaking from the general poleward movement of many species, flowering trees take an unexpected turn.

Extreme weather is hurting Australian farmers – it's time to demand action Heat, drought and floods are affecting Australia's food security but shoppers can support farmers by learning about the origins of their groceries.

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Sustainability

Government has no clear plan to reach Sustainable Development Goals

Cities need 'hedges as well as trees' for environment

Opportunities

<u>IPBES draft assessments on biodiversity and ecosystem services open for review</u>

Draft chapters and summaries for policymakers are open for external review by scientists, decision-makers, practitioners and holders of indigenous and local knowledge. Assessments relating to Africa, Asia-Pacific, and Europe and Central are open to review until 26th June 2017, while the review period for the Americas assessment runs until 24th July.

Consultations

<u>Public consultation on the Draft guidance for the risk assessment of the low level presence of genetically modified plant material in imported food and feed under Regulation (EC) No 1829/2003</u>

EFSA has launched a public consultation on a draft Guidance for the risk assessment of the low level presence of genetically modified (GM) plant material in imported food and feed under Regulation (EC) No 1829/2003, endorsed by the EFSA Panel on Genetically Modified Organisms.

Closes 13 June 2017

Events

<u>Industrial biotechnology processes to develop high-value products from plants:</u> utilising open-access scale-up and biorefining centres

27 June, York

This one day workshop will explore how research can be progressed along the technology readiness levels into high value bio-based products from plants, and is supported by BioPilots UK. The workshop supports our targeted PoC call (see below).

New Breeding Technologies in the Plant Sciences

7-8 July 2017, Gothenburg, Sweden

This event, which will be a satellite meeting of the SEB's annual main meeting in Gothenburg, Sweden (3–6 July), will be of great interest to plant and crop scientists who are invested in the future of gene editing both on a practical and regulatory level. We will provide a forum for debate around the broader policy issues whilst include opportunities for in-depth discussion regarding the techniques required to make this technology work in your own research.

Utilising genetic resources in R&D

13 July 2017, York

This half day training event is an opportunity to gain an overview of the Nagoya Protocol and associated EU Regulations which have significant implications for the way R&D using certain plant and microbial materials is conducted. This event will include a variety of interactive learning approaches developed from our recent workshop "Sharing nature's genetic resources – implementing the Nagoya Protocol on Access and Benefit Sharing".

Fourth International Horticulture Research Conference

16-19 July 2017, East Malling, Kent

The purpose of the conference is to bring together international researchers conducting basic research on horticultural crops, to showcase the latest research findings and to network with colleagues from around the world.

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

And finally...

<u>Scientists have mapped the DNA of tea – and it could stave off a pending crisis</u> Sequencing the tea plant's genome could help scientists breed new varieties that thrive in the degrading soil of tea farms.

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