



Relu Newsletter

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1. Making towns and cities pollinator friendly

Insect pollinators are essential for food production and wild flower reproduction and they are under increasing pressure. A majority of humans live in urban areas, but we tend to think only of the pressures on pollinators in the countryside. It's important that we also manage our towns and cities as pollinator friendly environments. LWEC's Policy and Practice Note no 20 explains how this might be achieved.

2. N8 AgriFood working to ensure sustainable, resilient and healthy food

With HEFCE funding, the N8 universities of Durham, Lancaster, Leeds, Liverpool, Manchester, Newcastle, Sheffield and York have launched a new research initiative. The Agri-Food Resilience Programme combines world-leading crop and livestock research with expertise in social sciences in a single research initiative focused on ensuring the stability and integrity of national and global agri-food supply chains in the face of environmental, social and economic challenges.

3. Can individual actions effect sustainable change?

Carbon Dioxide emissions continue to rise in the Global North and a growing proportion of these are related directly or indirectly to private households. Consequently policy has increasingly focused on individual behaviour but can individuals really change their practices? In LWEC Policy and Practice Note 21 "Rethinking the role of individuals' behaviours in sustainable consumption" researchers argue that the problem can only be addressed effectively by intervening in systems.

4. Centre for Agricultural Innovation is open for business Agrimetrics, the world's first Big Data Centre of Excellence for the whole food system has been officially opened. Agrimetrics' founding partners are Rothamsted Research, the University of Reading, the National Institute of Agricultural Botany and Scotland's Rural College, and this first Centre for Agricultural Innovation has been created by the UK government through Innovate UK under the UK Strategy for Agricultural Technologies. Agrimetrics will support a revolution in the use of big data science in the agri-food industry and contribute to a highly intelligent, productive, efficient, resilient and sustainable system.

5. How can local authorities help to improve air quality in their area?

Improving air quality could have a range of health and economic benefits for people in the UK. <u>LWEC's PPN No 22 "The role of local government in improving air quality"</u> explains how local and regional government could make a difference through traffic and transport

management, wider planning decisions and better monitoring of the problem.

6. Nexus Network grants and workshops

The Nexus Network has £300,000 available to support inter- and trans-disciplinary research projects on nexus themes. Projects should improve understanding of food-energy-water nexus interactions and support actions to improve their sustainability. Proposals are invited for funding of up to a maximum of £150,000 each and for projects of up to 12 months. The deadline is 31 January 2016. For full details see the Research Partnership Grants page. The Network is also running two workshops during the first half of 2016: the first is on resource conflicts, with a focus on what food-energy-water means for people in the global South on 29 Feb 2016. The second is on food-energy-water provision, again with a global South focus, on 12 and 13 May 2016.

- 7. Twenty one projects funded by The Agri-Tech Catalyst
 Pioneering projects to improve agriculture and food production at
 home and overseas have been awarded funding of £17.8 million
 under the latest round of the Government's Agri-Tech
 Catalyst. Projects include one assessing the potential to
 commercialise the farming of lobsters, a proposal to cultivate
 scallops on ropes and a way of continuing to make whisky with UK
 wheat, by using a novel variety. The technologies are among 21
 successful bids that have won a competition to target commercially
 promising new technologies to provide an economic boost to the UK
 agriculture sector. Deadlines for the current call are: Registration by
 13 January 2016 and Applications by 20 January 2016. To apply
 visit the InnovateUK website.
- 8. Relu researcher reviews 10 year progress in biocontrol
 At the annual conference of the International Biocontrol
 Manufacturers Association in Basel Wyn Grant who led Relu's The
 role of regulation in developing biological alternatives to pesticides
 reviewed the progress that has been made since the Relu
 project. Slides from his presentation "10 years of progress in
 representing biocontrol" are now available.
- 9. New research network puts farmers in the driving seat
 An unprecedented partnership of farming groups has launched a
 new network to support innovation by farmers. Innovative Farmers
 gives farmers research support and funding on their own terms. The
 network is part of the Duchy Future Farming Programme, funded by
 the Prince of Wales's Charitable Foundation. The Soil Association,
 Organic Research Centre and Waitrose have been partners in the
 programme and are now joined by LEAF (Linking Environment and
 Farming) and Innovation in Agriculture, ensuring that the new

network represents farmers and growers across the industry.

10. Wheat yields more information about its genes

A more complete and accurate wheat genome assembly is being made available to researchers, by BBSRC's Genome Analysis Centre. This landmark resource builds on international efforts and will help wheat breeders to accelerate their crop improvement programmes and researchers to discover genes for key traits such as yield, nutrient use and bread-making quality. As wheat is one of the world's most vital crops, the new data will help secure future food supplies. Reaching this milestone has been a major UK-based effort to identify and understand wheat genes and develop insights into the links between them to aid breeding programmes.

11. Talking the talk on ecosystems services

Stakeholder engagement and involvement in decision making is key to the Ecosystem Approach but this involves working with a new language and philosophy to understand and value the natural world. LWEC Policy and Practice Note 23, "<u>Using ecosystem services in public engagement and dialogue on the natural environment</u>" provides pointers for organisations undertaking these processes.

12. New online resource provides conservation evidence Conservation Evidence is a free, authoritative web-based information resource designed to support decisions about how to maintain and restore global biodiversity. It provides evidence from the scientific literature about the effects of conservation interventions such as methods of habitat or species management. It extracts evidence continually from important conservation journals and systematic reviews published by the Collaboration for Environmental Evidence and searches through more specialist journals and unpublished literature to focus on particular species groups or habitats. Based at Cambridge University, with collaborators and advisers in all continents of the world, the project was conceived and is led by William Sutherland who was principal investigator on Relu's Management Options for Biodiverse Farming project. Now available as a download from this resource is the recent report from Smith, R.K., Dicks, L.V. & Sutherland, W.J. "Scientific evidence to address priority knowledge needs for sustainable agriculture"

(http://conservationevidence.com/synopsis/download/19) which provides an assessment of the effectiveness of relevant management actions to address 35 of the priority knowledge needs for sustainable agriculture.

13. Propagating willow for bioenergy becomes easier

Rothamsted Research scientists have used a method for propagating willow in a shorter time, with less labour compared to traditional willow breeding. The method, a form of micropropagation, produced more plants which were free of disease compared to traditional willow breeding methods. The disease-free plants were exported to Canada; where the risk of the spread of willow-borne diseases often causes a ban on importation. There has been an increasing interest in growing improved willow varieties for renewable energy and diverse bioproducts, driven by the challenge to reduce dependency on fossil fuels and help build the bioeconomy.

14. DTC findings influence greening rules for 2016

Changes included in the updated guidance on European Union "greening" rules to help farmers applying for Basic Payment Scheme support in 2016, include the use of oilseed radish to count as part of a mix as an Ecological Focus Areas catch and/or cover crop. This addition draws on findings from cover crop trials carried out on the Salle Estate on the Wensum as part of the Demonstration Test Catchments programme.

15. A low carbon economy relies on supply of critical metals
The world is striving to achieve a low carbon economy, but this
relies on a large and varied group of metallic elements that are
being used at an ever increasing rate. LWEC's policy and practice
note on the topic looks at the challenges and provides some
pointers for policy makers and industry that could help ensure the
supply of these important resources.

16. Wellcome Witnesses investigate history of bTB

A <u>Witness Seminar in the Wellcome Witnesses to Contemporary Medicine</u> series looks at the history of bovine TB from the mid-1960s to c.2000. The seminar was chaired by Wyn Grant from Relu's <u>Governance of Livestock Disease</u> project and introduced by Professor Keir Waddington, with contributions from veterinary scientists, biologists, members of conservation and animal welfare groups, and farmers.

17. Farming and Water Action workshop in March
Earlier this year, the Farming and Water Action Group of the
UK Water Partnership published a series of reports that
explored the links between water and food production and the
challenges for delivering both food and water to society in a
sustainable way. They identified issues, evidence gaps and
potential solutions and made recommendations for policy-

makers, industry, practitioners and academia. The UK Water Partnership is now planning a workshop which will be held in

Reading on 10 March 2016 to consider how these recommendations can be addressed. Details and how to register will be available soon and will be posted on the Landbridge website but please mark the date in your diary if you are interested. Any queries in the meantime should be addressed to Faith Culshaw faith.culshaw@nerc.ac.uk.

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