



Season's Greetings from Secretariat

SAIN Work in Progress

SAIN project held workshop in Tianjing

SAIN project 'Knowledge, policy and practice for sustainable nutrient management and water resources protection in UK and Chinese agro-ecosystems' held final workshop in Tianjin on 3-5 November.

The purpose of the workshop was to enable presentation and discussion of the analyses and findings of this project, and more widely the challenges and opportunities surrounding nutrient management in China and the UK.



SAIN supports a major new UK-China joint centre on nitrogen



A major new Centre is being established between UK and Chinese scientists to tackle the issues of nitrogen use and pollution from agriculture. The Centre is led by the University of Aberdeen with UK partners from the University of East Anglia, the University of Cambridge, SRUC and ADAS as well as nine leading partner institutions from China: China Agricultural University, Beijing, Chinese Academy of Agricultural Sciences, Chinese Academy of Sciences, Nanjing Normal University, Nanjing Agricultural University, Beijing Normal University, Capital Normal University and Zhejiang University. The £7 million Centre, which will be called N-Circle to emphasise the focus on recycling nitrogen resources and closing the nitrogen cycle,

will receive just under £3 million from BBSRC and the Newton Fund, and over £4 million from sources in China.

The new Centre will be led by Prof Pete Smith from the Institute of Biological and Environmental Sciences at the University of Aberdeen, who having been a working group lead for the UK-China Sustainable Agriculture Innovation Network (SAIN).said, "Nitrogen is used as a fertilizer to improve agricultural productivity, but pollution from overuse or misuse of nitrogen causes issues for soil, water and air quality, as well as being a major cause of climate change. It is therefore essential to tackle nitrogen inputs, transfers and losses to allow us to produce the food we need to feed 9-10 billion people by 2050, without wrecking the environment in the process.

China uses more nitrogen fertilisers than any other country in the world, so is a critical region to tackle the nitrogen problem. Europe still has room for improvement but has successfully reduced nitrogen pollution over the last 3 decades so, with our Chinese partners, we will bring this good agricultural

UK-China Sustainable Agriculture Innovation Network (SAIN)

practice to China, and together will enhance the latest scientific understanding to develop innovative solutions for improved nitrogen use efficiency on both continents.”

Dr Yuelai Lu of University of East Anglia, Head of Secretariat of the UK China Sustainable Agriculture Innovation Network (SAIN) said, “Efficient use of nitrogen fertiliser plays a key role in sustainable intensification of China’s agriculture; this timely and multidisciplinary project will help to translate our understanding of N cycle into practical solutions to support China’s agricultural transition.”

Prof Roger Sylvester-Bradley of ADAS welcomed the new funding and particularly that the funders had recognised the importance of the new Virtual Centre addressing all aspects of the N Cycle, from soil microbiology to crop protein storage and livestock nutrition; “For the first time, we will be able to show how multiple innovations can have significant synergies”, he said.

Prof Liz Baggs, Head of the School of Biological Sciences, University of Aberdeen, said, “we are delighted to be leading this new Centre at such a challenging time for sustainable global agriculture, and we look forward to working with our partners in the UK and China to ensure our research delivers global impact”.

Prof Sir David Baulcombe, Prof Chris Gilligan and Prof Howard Griffiths, of the Department of Plant Sciences, University of Cambridge, are keen to emphasize that N-Circle will foster research capacity in important areas including crop yield and grain quality. They commented, “This proposal helps to consolidate our Crop Science initiative at Cambridge and the collaboration with our partners in the UK and China will help us to translate fundamental research into agronomic practice.”

Prof Bob Rees, Head of the Carbon Management Centre at SRUC, said “this project provides a unique opportunity to bring together leading scientists in the UK and China to address the challenge of balancing the increased demands for food with environmental protection and sustainability.

The new N-Circle Centre will begin its work early in 2016.

Engagement and dissemination

SAIN establishes partnership with Chinese Society for Tropical Crops

On 11th December, a cooperative partnership between SAIN and Chinese Society for Tropical Crops (CSTC) was launched in Haikou, Hainan Province. Dr Yuelai Lu, Head of SAIN Secretariat (UK) and Prof Guodao Liu, Vice President of CSTC signed the cooperation agreement.

Both sides agreed to cooperate in the areas of policies and technologies on sustainable agricultural intensification; agricultural technology transfer; transformation and use of innovation outcomes from agricultural research; knowledge sharing and mutual learning; joint application and implementation of international cooperation projects.

CSTC is one of the major professional societies in China, currently has 143 organisational (including government, academic and industry) members and 7800 individual members.



Conference presentations

8th December. Prof Laurence Smith of SOAS and Dr Jessica Bellarby of Lancaster University delivered a lecture at the training course for Chinese delegation in the University of East Anglia. The lecture was based on the findings of SAIN project ‘Knowledge, policy and practice for sustainable nutrient management and water resources protection in UK and Chinese agro-ecosystems’;

10th December. Dr Yuelai Lu, Head of SAIN Secretariat (UK) gave a keynote presentation of “Agricultural Technology Transfer Initiatives in Africa “at the conference “Promote Agricultural Development through Technology Transfer: China and Africa in International Perspective”, Beijing.

Recent Events on UK China Cooperation in Agriculture

❖ **2-8 November,** British Menu Week was held in Beijing. ‘British Menu Week’ brought a taste of modern British cuisine to China, providing a mouth-watering opportunity for consumers to experience first-hand some of the best food and drink in the world today.



❖ **11 November.** Environment Secretary Elizabeth Truss announced UK barley deal worth £100 million to boost Chinese beer industry. Barley producers set to benefit from landmark agreement to export around 750,000 tonnes of the grain to China.



❖ **12 November.** Elizabeth Truss, Secretary of State for Environment, Food and Rural Affairs (DEFRA) met Han Changfu, Chinese Minister of Agriculture in Beijing. Both agreed to improve bilateral cooperation mechanisms and deepen mutually-beneficial and pragmatic cooperation; seize the opportunities and create favourable conditions for agricultural trade promotion; and maintain close communication within multilateral frameworks and explore

tripartite cooperation modes.

❖ **24-25 November.** The Chinese Vice Minister of Agriculture, President of Chinese Academy of Agricultural Sciences (CAAS) Prof Jiayang Li visited the UK, and signed Co-operation Agreement with UK’s BBSRC, Rothamsted Research, Centre for Ecology & Hydrology, James Hutton Institute, and John Innes Centre respectively.



❖ **8-15 December,** The agricultural technology training course for Chinese delegation held in the University of East Anglia in Norwich. The Chinese delegation was led by Dr Xie Jianhua, Deputy Director of the National Agricultural Technology Extension and Service Centre, the members included senior officials and academics of national and provincial agricultural technology extension centres and agricultural universities. The purpose of the training was to enable the delegation to gain knowledge and practices of UK’s wheat breeding and cultivation.

Funding Opportunities

China–UK research and innovation bridges competition

Innovate UK, RCUK & MoST for the People's Republic of China are to invest up to £16 million in collaborative research & development projects that propose new commercial solutions to challenges impacting the socio-economic growth & development of China in relation to energy, healthcare, urbanisation and agri-food.

The aim of the competition is to bring together companies (small to medium-sized companies and/or larger businesses), research organisations, academics and other collaborators from China and the UK for the joint research and development of new solutions to key socio-economic challenges, in the form of innovative products, processes or services. The principal market a project must consider is China.

Key facts:

- **Award:** Up to £16 million
- **Opens:** 16 Nov 2015, 00:00
- **Registration closes:** 23 Mar 2016, 12:00
- **Closes:** 30 Mar 2016, 12:00

More details see Innovate UK website:

https://interact.innovateuk.org/competition-display-page/-/asset_publisher/RqEt2AKmEBhi/content/china%E2%80%93uk-research-and-innovation-bridges-competition

UK-China AMR Partnership Initiative

The Medical Research Council (MRC), the Economic and Social Research Council (ESRC), the Biotechnology and Biological Sciences Research Council (BBSRC) and the National Natural Science Foundation of China (NSFC) are pleased to invite proposals to the UK-China AMR Partnership Initiative.

This initiative will provide funding for high quality collaborative research projects focussed on addressing the growing global burden of antimicrobial resistance, specifically antibacterial resistance of clinical and veterinary relevance in China.

Key facts:

- **Status:** Open
- **Open date:** 14/12/2015
- **Closing date:** 01/03/2016 16:00

More details see MRC website:

<https://www.mrc.ac.uk/funding/browse/uk-china-amr-partnership-initiative/>

For more information about SAIN, please visit: <http://www.sainonline.org/English.html>

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