

Chief Scientific Adviser sees ground-breaking research at the University

29 Jan 2009

Top scientist Professor John Beddington has looked at research designed to reduce the millions of tonnes of food that are wasted on the journey from ‘farm to fork’, during a visit to the University of Manchester.



Today many of the foodstuffs we eat in the UK are grown in warmer climates of the world and can have travelled thousands of miles before their journey ends on a plate. But exposure to extreme heat or humidity during the journey can mean vast amounts of produce are no longer fit to eat by the time they reach the UK.

On Thursday (January 29, 2009) the Government’s Chief Scientific Adviser Professor John Beddington CMG FRS was given an insight into ongoing work in the University’s Sygenta Sensors University Innovation Centre (UIC) that could reduce that waste significantly.

Although data logging technology can already be packed alongside produce to show the point in the journey it was exposed to damaging levels of heat or humidity, the information it stores can only be accessed when the produce reaches its final destination. And that means it’s too late to have an impact on the condition of the produce itself.

Now scientists at the University’s Sygenta Sensors UIC are developing low-cost radio frequency identification (RFID) sensors that could provide real-time information about the produce.

Data from these new sensors could be analysed at various stages of the journey using fixed data readers at warehouses, distribution centres or airports.

And that information could be used to determine changes to the condition of the product and to assess any impact that could have on its shelf-life – leading to the setting of more scientific ‘best before’ dates.

Where necessary, the readings could prompt remedial action to preserve the produce en route. And where data suggested the produce would be inedible on arrival in the UK, it could be sold off locally – which would rule out unnecessary transport costs.

The development of the project has already brought together the expertise of electrical engineers, chemists, physicists and experts from the Manchester Business School.

And it was one of a number of ongoing research projects that were seen by Professor Beddington, during his visit to the Faculty of Engineering and Physical Sciences.

Professor Beddington also visited Manchester Interdisciplinary Biocentre (MIB) and the Joule Centre for Energy Research in the North West. He witnessed a demonstration of the wave tank in the School of Mechanical, Aerospace and Civil Engineering.

Commenting on the visit Professor John Perkins, Vice President and Dean for the Faculty of Engineering and Physical Sciences, said: “I am delighted to welcome John Beddington to the University.”

Professor Beddington is pictured talking about the sensors project with Dr Bruce Grieve, who is Director of the University’s Sygenta Sensors University Innovation Centre.

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Notes for editors

Further information is available from Deborah Haile, at the University of Manchester media relations office, on 0161 275 8387 or 07771 978 639.