

# In the country

Rural Britain has changed massively over the past 20 years. Villages have seen an influx of middle class, town-orientated people; crises such as BSE and foot-and-mouth have had



huge implications on farming and tourism; and government support for agriculture and forestry has eroded significantly.

This has led to increased demand from government, the EU and other interested bodies for a greater understanding of this ever-changing area. The University of Nottingham's rural academics are working in a

progressively interdisciplinary way, and a dedicated Institute for Rural Research has been established to further raise the University's profile as a leading centre in this area.

The Lowdown spotlights four academics in biosciences, sociology, geography and economics, and looks at the impact they are having on rural research.

Professor  
Martin Seabrook  
Biosciences

Head of the Division of Agricultural Sciences and Professor of Rural Economy, Professor Seabrook is one of the leaders in his field. His research primarily covers three areas: the psychological interaction between humans and animals, the uptake of innovations by farmers, and rural business and household incomes.

The latter area has led to him becoming the director of the Rural Business Research Unit, which is responsible for collecting farm and household income data from 250 farms in the East Midlands.

'Farming isn't just about farming, as many farms wouldn't exist if they didn't do other things such as contracting and tourism,' he explains. The data collected maps out the totality of farm income, and shows how Government policies impact on rural businesses. Work for this is funded by the Department for Environment, Food and Rural Affairs (DEFRA).

The University itself owns about 1,000 acres of farmland in and around its Sutton Bonington site, where it can put a lot of its research and theories into practice. 'We want to make it clear that we can offer the facilities and thinking to people, whatever it is they want to do,' he says.

Nowhere is this more evident than in one of the UK's largest robotic milking systems, run by Professor Seabrook and his team. It's dedicated to improving human and cattle interaction without compromising the quality or quantity of the end product.

This groundbreaking project is quite a spectacle. The huge barn houses around 180 cows, all of which can move freely around before simply walking into their nearest milking compartment. The machinery then automatically attaches itself to the udders. When it's finished, the cow simply leaves via the gate and allows the next one in.

The process breaks away from traditional methods of 'forced' milking and nurtures a more natural way, allowing greater interaction between farm staff and the herd.

Despite initial scepticism, Professor Seabrook believes that this heralds a significant step for farming, producing more milk in more comfortable surroundings.

#### Further Information

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Dr Sam Hillyard  
Sociology

The foot-and-mouth outbreak in 2001 decimated livestock across the country as 6 million animals were destroyed in the worst outbreak of the disease for more than 30 years. It wasn't just farmers who saw their livelihoods literally going up in smoke, the tourist trade took a big knock with the public barred from large parts of the countryside.

A couple of years on and there are lessons to be learnt.

That's where Dr Sam Hillyard, who works within the University's Institute for the Study of Genetics, Biorisks and Society (IGBiS), and colleagues come in. Led by Dr Brigitte Nerlich, the team are taking part in a two-year Economic and Social Research Council (ESRC) project worth £135,000, that looks at the cultural and social impact of foot-and-mouth as part of the ESRC's Science in Society programme.

Conducting dozens of in-depth interviews with farmers both in infected and affected areas, Dr Hillyard will explore what kind of information they were relying on, how it was used, and how it was mediated through the national and local press, web groups, the Government and the National Farmers' Union.

'Foot-and-mouth demonstrates what's wrong with the countryside,' says Dr Hillyard. 'There are so many questions to answer: Why aren't people looking at rural issues? What has changed? How has the advent of new technology had an effect?'

Dr Hillyard hopes that the interdisciplinary team's answers will go some way towards understanding the complex social factors involved in foot-and-mouth and help form Government policy in the future.

#### Further Information

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Professor  
Charles Watkins  
Geography

As you probably know, analysing the rings in a tree (dendrochronology) determines their ages. However, when they start to die, the middle begins to hollow out; nature's version of wiping the records.

So, backed by significant funding from English Nature, Professor Charles Watkins with Dr Chris Lavers and team have developed a system that enables them to estimate how long trees can last, their date of death and how long they will continue to stand afterwards. The work is being carried out on the ancient oak trees of Sherwood Forest in Nottinghamshire, and although about 35% of the trees are actually dead, they still provide a vital reserve for rare wildlife.

'The University is the first to do this on such a significant scale. These trees are extraordinarily old, with many dating back to the 1400s – maybe even 1300,' he explains.

Charles Watkins is Professor of Rural Geography and specialises in landscape history, rural land management and the conservation of nature. His other recent projects include a £90,000 ESRC - funded study, with Dr D Matless, into how the massive modernisation of farming from 1945 to 1970 led to an increase in environmental concerns; and a government-funded (£50,000) study, with Dr Seymour and Dr Fish, into countryside stewardship and the management of historical features.

His research with colleagues from History and Archaeology on the landscape history of Liguria, north west Italy, has shown how extensive rural depopulation has seen a return to a form of natural landscape. 'We often think that humans are always doing more harm than good, but actually human interaction with a wild landscape can actually be more beneficial. There is a question over whether you can really return to a "natural" state of wildness, so we're looking at the best ways to conserve cultural and natural aspects of the countryside.'

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Dr Tim Lloyd  
Economics

Managing editor of the respected peer review, Journal of Agricultural Economics, Dr Lloyd is a senior lecturer in Economics and a research fellow at Nottingham's Centre for Research in Development and International Trade (CREDIT).

From a position of pre-eminence, agriculture's relative contribution to an economy inevitably declines as consumers spend more of their higher incomes on other goods and services.

'As people get richer, they spend proportionately less of their income on basic components of food such as nutrients and calories,' he says. 'An increasing proportion of our spending on food actually pays for the how, when and where we buy food, whether that's from fast-food restaurants or from supermarkets.'

'We live in an age that's been coined "the consumption revolution", an important aspect of which is that we purchase almost half of our food from just four retailers.'

The supermarket retailers are, therefore, in a pivotal position between producers and consumers of food. While supermarkets offer wide-ranging benefits to consumers, the potential to misuse their power is clear.

Dr Lloyd has been part of a programme funded by DEFRA, scrutinising the supermarkets over whether farmers and consumers are being exploited. The research informed the recent supermarket inquiry by the Competition Commission, which identified 29 practices routinely used by supermarket chains to be against the public interest. Of these, two were in relation to consumers, 27 detrimental to the producers.

Although he admits it's very hard to identify if and when a supermarket giant oversteps the mark, these reports act as important unofficial watchdogs for the industry, striving to protect consumers and producers.

'Analysing the efficiency of the food chain is not only topical but is an increasingly relevant aspect of food economics in the UK and beyond.'

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