

## 6.5 Perspectives on technical change in agriculture

Room 203

*Convener: Paul Brassley*

*Chair: Michael Winter*

### 6.51 Andrew Godley – Intensive rearing technologies and industrial organisation in the UK poultry industry, 1950–1970

Only one million chickens were consumed for meat in the UK in 1953, but over 250 million by 1965. This remarkable rate of growth in production was predicated on a range of frequently novel technologies. These ranged from those with high-science content, such as genetics, pharmaceuticals and feedstuffs, to the relatively mundane animal management techniques such as methods of housing and feeding ever larger flocks of chickens. The efficient adoption and diffusion of these novel technologies in the UK depended on an industry structure that minimised wasteful investment. This paper contrasts the organisation of the poultry industry in Britain with that of the United States, showing how the emerging agribusiness in the UK, while starting from a much lower base, was nevertheless more efficient in its allocation of capital, allowing UK agribusiness to catch up to US levels of productivity relatively quickly.

**Andrew Godley** is a Professor in Business History at the Henley Business School, University of Reading. His research focuses on entrepreneurship and the evolution of market structures in the twentieth century. Recent projects include the development of the veterinary medicines industry in the UK since 1900 and the increasing roles played by the big supermarkets in organising their supply chains in the British primary foods sector since the 1950s, notably in the case study of the modern poultry industry.

### 6.52 Karen Sayer – ‘Animal machines’: the public response to intensive poultry production

2008 saw some high-profile challenges to intensive poultry farming. Initiated by Channel 4’s ‘Big Food Fight’, TV chefs like Jamie Oliver widely publicised the ways in which most poultry is farmed today. The free range and organic end of the sector meanwhile has been growing steadily, accounting for over 30 per cent of the eggs put through the packing stations – 35 per cent of the retail sector. The fact that consumers buy eggs produced under these systems though they cost more is interpreted by DEFRA as being indicative of the value that consumers place on animal welfare.<sup>2</sup> The challenge to intensification however is not new. In 1964, Ruth Harrison observed in *Animal Machines*, that ‘[c]hickens, like other animals, are fast disappearing from the farm scenery. Only 20 per cent are now on range, whilst 80 per cent have gone indoors.’ While the chicken gradually became a ‘machine’, the consumer was simultaneously fed images of birds roaming freely.

Drawing on documents from the international congresses on poultry, specialist journals and farming advice books, the imagery surrounding the commodification of the products arising from poultry-rearing, especially eggs, and critiques of intensification, this paper will explore the public response to the transformation of poultry production during the twentieth century.

**Karen Sayer** is Senior Lecturer in History at Leeds Trinity University College, Leeds. She has published widely in rural history, her first monograph being *Women of the Fields: Representations of Femininity in Nineteenth-Century Rural Society* (1995), and her second *Country Cottages: A Cultural History* (2000). Most recently she has published on animal technologies with a focus on poultry in “‘Let Nature be your Teacher’: W. B. Tegetmeier’s Distinctive Ornithological Studies”, *Victorian Literature & Culture* 35 (2007), and “‘Battery birds”, “stimulighting” and

<sup>2</sup> ‘Animal Health and Welfare Indicators: Core Indicator 5.1’ Available online <http://www.defra.gov.uk/animalh/ahws/eig/indicators/5-1.htm> [03.09.08]

“twilighting”: the ecology of standardized poultry technology’ in *History of Technology 28 Special Issue: By whose standards? Standardization, stability and uniformity in the history of information and electrical technologies* (2009).

### 6.53 Hilary Crowe – Dealing with symptoms not causes? The 1947 Agriculture Act and upland farming

‘A herd of ten to twenty cows, a flock of poultry and perhaps a few pigs ... with 40 acres or so of irregular fields ... and a standard of living that ranged from comfortable to bare subsistence.’ That was the problem farm of popular imagination post-war. The 1947 Agriculture Act was a charter for change. Through a complex mix of price support and direct subsidy, government sought to raise output and productivity but also to provide financial support to the poorest in the industry. This paper uses data from the Farm Management Survey to analyse the financial impact of direct subsidy on upland holdings. It highlights the conflicting aims of various policy measures and shows that although direct subsidy linked to livestock numbers encouraged increased output, it also reduced profit margins and inhibited rationalisation of holdings.

**Hilary Crowe** is a Chartered Accountant and Research Fellow at the Museum of English Rural Life, Reading. Her D.Phil work covered upland agriculture between 1910 and 1947 and her current project uses Farm Management Survey material and returns to examine the financial position of upland farming in the period prior to accession to the EEC.

### 6.54 Paul Brassley, Michael Winter, David Harvey and Matt Lobley – Perspectives on technical change in agriculture

On a world scale, the increase in agricultural production over the last half century has been sufficient to cope with a population that has more than doubled. Similarly, although the UK population has not increased to the same extent, import substitution has meant that the volume of domestic agricultural production nearly trebled in the same period. What is still controversial is the source of these increases. Are they the result of increased inputs of fixed and working capital (as in buildings, machinery, feedstuffs and fertilisers), or of technical change (as in new crop varieties, genetic improvement in livestock, pesticides, and new kinds of machinery)? This paper reports on progress in the analysis of a survey of farms in south-west England over the period 1935–85 which permits an examination of the relative significance of these two possibilities. It also explores the processes and decisions involved, from the perspective of both farmers and those involved in transforming policy decisions and laboratory science into farmyard practice.

**Paul Brassley** is a research fellow in the department of Politics at the University of Exeter, where he is engaged in a three-year ESRC-funded research project (with Professor Michael Winter and Drs Matt Lobley and David Harvey) analysing the Farm Management Survey archive for the south-west of England. He was previously Lecturer in Rural History and Policy at the University of Plymouth, and has been chair of the BAHS and treasurer of the Inter-war Rural History Research Group. He was a contributor to two volumes of *The Agrarian History of England and Wales* and edited (with Jeremy Burchardt and Lynne Thompson) *The English Countryside Between the Wars* (2006). More recently, he has contributed to several volumes in the COST A35 Action on Rural History in Europe.

**Professor Michael Winter OBE** is Professor of Rural Policy in the Department of Politics, and Director of the Centre for Rural Policy Research, at the University of Exeter, where he is engaged in a 3 year ESRC-funded research project (with Drs Paul Brassley, Matt Lobley and David Harvey) analysing the Farm Management Survey archive for the south-west of England. The main focus of his research is on agricultural and environmental management issues, with particular reference to changes in agriculture, and it has frequently had an historical as well as a contemporary focus. His publications include *Rural Politics* (Routledge, 1996) and *What is Land For?* (with M.Lobley, Earthscan, 2009)

**Dr Matt Lobley** is a Senior Research Fellow in the Department of Politics, and Deputy-Director of the Centre for Rural Policy Research, at the University of Exeter, where he is engaged in a 3 year ESRC-funded research project (with Professor Michael Winter and Drs Paul Brassley, and David Harvey) analysing the Farm Management Survey archive for the south-west of England. Much of his research has focused on understanding influences on, and impacts of, farm household behaviour, and on the role of farm households in the management of the countryside. His publications include *What is Land For?* (with M.Winter, Earthscan, 2009)

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**Dr David Harvey** is Senior Lecturer in Historical Cultural Geography in the University of Exeter, where he is engaged in a 3 year ESRC-funded research project (with Professor Michael Winter and Drs Paul Brassley and Matt Loblely ) analysing the Farm Management Survey archive for the south-west of England. His current research seeks to investigate the geographies of power and authority, knowledge and identity, mostly within a historical context, and is strongly interdisciplinary, working between geography and archaeology, history and heritage studies. His publications include *Celtic Geographies* (ed), (Routledge, 2002)