

# Reviews

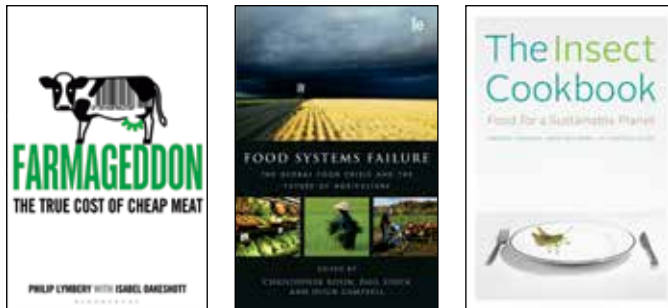
*Farmageddon: The True Cost of Cheap Meat* by Philip Lymbery with Isabel Oakeshott  
PATRICK MULVANY

*Food System Failure: the Global Food Crisis and the Future of Agriculture* edited by  
Christopher Rosin, Paul Stock and Hugh Campbell  
BEN BENNETT

## BOOKS RECEIVED

*The Insect Cookbook: Food for a Sustainable Planet* by  
Arnold van Huis, Henk van Gurp, and Marcel Dicke

*Edible insects: Future prospects for food and feed security*, FAO Forestry Paper 171  
Food and Agriculture Organization of the United Nations, Rome



### **Farmageddon: The True Cost of Cheap Meat**

Philip Lymbery with Isabel Oakeshott

2014, Bloomsbury, 426 pages, paperback, ISBN 9781408846421, £12.99;  
ebook £10.99

*Farmageddon* is a tome of examples, case studies, and information about the world's dysfunctional, unsustainable, unhealthy, and welfare-disdaining food system. But it leads us towards solutions.

For those who have been shielded from the horrors of industrial livestock and fish production by misleading advertising, promotion, and packaging, which portray smiling cows, pigs, and poultry in bucolic landscapes, it is a wake-up call.

For those who are already aware of the devastating impacts of the devouring expansion of the industrial food system that is engulfing people and the planet, this book organizes the facts and stimulates reaffirming flashbacks of their own experiences.

Such was the impact on me when reading this book on a recent visit to Peru, a country included by Philip Lymbery in his global odyssey to research this book.

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There, the iniquities of the globalized food system are shown in stark relief. I was reminded of an earlier visit some years ago when interviewing farmers in Ispacas, a remote community high in the Andes above the southern city of Arequipa. Then, at a time of great shortage of food, canned chickens were provided through an aid programme. This, my hosts called 'Pollo del Mar' (literally 'chicken from the sea'). Why? Because, they said, it comes from afar by boat and is then transported up the mountain to our community. But, they added, when we open the can, we smell fish coming from the chicken – truly it must be a 'sea chicken', they said. Reading the English language label on the can revealed that the chicken was part of a food aid consignment from the EU; subsidized Dutch chickens, surplus to production, canned and exported to Peru. Further investigation confirmed that the fishy odour was the result of the chickens being fed on high levels of fishmeal, from, you guessed it, Peru!

Lymbery's experience in Peru took him further and deeper into this iniquitous and exploitative trade. In Chimbote, the heart of Peru's industrial fishmeal production, fishmeal factories line the shore. There, he suffered the penetrating fumes from rotting fish and factory chimneys that cover the town, smelling similar to the 'sea chickens' gifted to the poor, but more pervasive and directly damaging the health of the town's children. Vast hauls of tasty anchovies from the one-time abundant fishery, supported by the nutrient rich Humboldt Current that flows up the coast of Peru from the Antarctic, are landed at the port. They are then ground into fishmeal and exported to industrial livestock factories and salmon farms worldwide. For every kilo of farmed salmon, 5 kilos of anchovies are required. Nothing remains for local consumers who need the protein; and the sweep of the industrial fishing boats scoops up many local fish, further reducing the amount of fish in local markets. The process is hugely inefficient in terms of food consumed by people and serves industrial production systems that have further problems. For example, the scourge of huge lice-infested fish farms, contaminating wild fisheries and polluting the seas in other regions.

What the normal visitor does not see, though, is the toxic sludge. Lymbery describes in graphic detail the 54 million cubic metres of effluent from the fishmeal factories, fish guts and all, which cover the ocean floor, killing all life in the sea. This sludge fills Chimbote Bay and oozes down the coast wiping out local fishing and recreation. It is a blight on the seascape, and impacts not only food provision but also tourism.

The fishmeal factories are the first link in the industrial meat and fish production chain described so clearly by Lymbery. The process of producing meat and fish in this way is exploitative at its source, exploitative in the importing countries' livestock factories and industrial fish farms, and exploitative of people's health when consumed.

But the fishmeal trade is not the first exploitation of the abundant riches of the Humboldt Current for foreign markets. As Lymbery notes, 'Guano' – the Inca term for the excrement of birds – produced for centuries by seagulls that fed on the anchovies and deposited up to 90 m thick on islands off the desert coast of Peru, was mined to near extinction to provide fertilizer for industrial agriculture in Europe,

especially the UK. The anchovies, ‘processed’ by gulls, were used then to achieve unsustainable growth in the industrial food system two centuries ago, much as the fishmeal factories do nowadays.

Lymbery’s odyssey also took him to Argentina, Mexico, the USA, China, and around Europe and the UK. He looked at the direct and indirect impacts of the industrial livestock system and fish farms; plunged into the heart of polluted valleys and animal slurry lagoons; penetrated huge livestock factories; spoke with victims and campaigners, heroes and villains; and found those who champion the sustainable, healthy, compassionate livestock production systems that should be at the heart of an omnivorous food system.

It’s the concentration of production that does the harm. Take muck and poultry droppings, for example. In a sustainable, small-scale mixed crop and livestock system, they provide regeneration of soil fertility. When a million chickens shit in one place, or the muck from a 100,000 pig unit or a 10,000 cow dairy herd is ponded in a lagoon, it causes an enormous pollution problem. The example of North Carolina is given, where, in 1995 a lagoon burst releasing 25 million gallons of noxious sludge into the New River, killing more than 8 million fish. Or the impact of aerial spraying of glyphosate and pesticides on more than a million hectares of soybean production in Argentina’s once fertile *chaco*, serving the interests of a few industrial conglomerates that control the chemical inputs, GM seed, and market chain. This soy, destined for livestock factories, industrial foods, and agrofuels, has poisoned people and the environment and has destroyed the livelihoods of tens of thousands of families in the region. China is not only a huge importer of industrial commodities including soy for its pork production, for example, but is also on the cusp of lurching into mega-farms, supported, as it happens, by UK genetics companies.

And the concentration in California’s Central Valley, where 80 per cent of the world’s industrial almonds are grown, results in what Lymbery calls a ‘No Fly Zone’ as a toxic mist of pesticides covers the area killing all insects. Even the bees, essential for pollinating the almonds and other crops, have been killed off and new bees have to be shipped in – 40 billion of them each year – some from as far away as Australia. In Central Valley, more or less hidden away, mega dairies robotically produce milk from short-lived cows to satisfy uninformed consumers on the coast.

The authors present a powerful, cogent account of what this concentration of production does to the animals, the people working in the factories, the surrounding environment, and the food system which it supplies. They equivocate about possible mitigation of industrial production by new technologies but identify the controllers and beneficiaries of these supposed technofixes – GMOs, cloning, featherless chickens, xenotransplantation – as being one and the same as those who are creating the problems.

The nub of the book is to ask, in a world of plenty that wastes a third of its food, who are the drivers of this paradigm shift from welfare-friendly, smaller-scale, nutritious food provision to the monster of industrial cheap meat production described? Is it the voracious corporations or consumers persuaded to buy too much for their own health? Is it the indebted farmers or supermarkets cornering the

market, selling cheap? Is it mendacious advertising, promotion, and packaging that lures gullible consumers into believing what they buy comes from a life-affirming and healthy production system?

The authors argue that consumer power can change the system; they also recognize that without firm regulation nothing will actually change. They provide examples of both and give us hope that there are many farmers who are ready and able to supply better food, produced humanely, to willing and well-informed consumers.

Philip Lymbery and Isabel Oakeshott help us to rethink the food system. The issues described in this book will underpin the work of Compassion in World Farming, of which Phillip is Chief Executive, marking a return to its roots. This book should shame those whose inaction is letting the powerful drive a dysfunctional and destructive industrial food system; but it will also encourage those who are prepared to make changes towards restoring a healthier, ecologically sustainable, and welfare-friendly food system.

*Patrick Mulvany*

### **Food System Failure: The Global Food Crisis and the Future of Agriculture**

Christopher Rosin, Paul Stock, and Hugh Campbell (eds)

2012, Earthscan from Routledge, 256 pages, paperback, ISBN 9781849712293, £23.31

This book draws from a gathering of international and local experts at a meeting of the 44th Otago Foreign Policy School, New Zealand, in July 2009 to consider the 'Global Food Crisis'. This conference, convened at a time when world food prices were at historic highs and economies in apparent meltdown, drew a strong cast of participants. Consequently, the papers presented make important contributions to the ongoing and wide ranging literature on the food crisis.

One of the key questions of the modern era is: can we produce enough food to feed ourselves? Prior to the recent food price crisis, Malthusian prophecies had been overtaken by technical progress, but in recent times we have begun to more accurately foresee and forecast the possible social and ecological consequences of global inertia, or 'doing nothing', and allowing market forces to play their game. Recent scholarly contributions, such as those of Jeffrey Sachs (2005) and Gordon Conway (2012), have offered positive road maps. This collection adds to that theme, but from a number of new perspectives including rights-based approaches, livelihoods frameworks, health, the ethics of distributions, and, crucially, climate change.

The first half of the book considers the structures of the global food system from a number of perspectives, all of which suggest that standing still or doing nothing (i.e. business as usual) is not an appropriate stance. Criticism of the global response to the food crisis comes from straightforward push-back on neo-classical economics as well as the realpolitik of interventionism that constituted many governments' kneejerk reactions to rising food prices and food riots.

Narrow, technical solutions which ignore complex social, political, environmental, and scientific contexts, are rejected by Pretty in his opening keynote chapter which

frames the challenges faced. Food aid is criticized (correctly) by Hugh Campbell using the interesting lens of food regime theory. The disappointing contribution of global trade to resolving the crisis is considered by Pritchard and McMichael, who conclude that food sovereignty might be a solution. The pernicious impact on food availability of domestic biofuels policy is reviewed by Philip McMichael who concludes that a rights-based approach to managing the global food system would not have allowed such policies to threaten global food security. This rights theme is again taken up by Claire Mahon and to some extent by Butler, Dixon, Stock, and Carolan who take a range of interesting perspectives on the causes and possible new ways of understanding food system failure, including nutrition and consumption. I found these foundation chapters of the book rewarding and enlightening, particularly the juxtaposition of perspective (nutrition, biofuels, political economy, trade) and theories (food regimes, food systems, financialization, rights-based approaches).

The second section of the book considers a number of case studies with broadly negative impacts and specific geographies. Lawrence et al. look at climate change and its impact on commercial food production in the Murray-Darling Basin in Australia; Neilson and Arifin shed light on the rice sector in Indonesia, an interesting example of interventionism; Ward et al. look at the smallholder soybean sector in South America and draw implications from 'soyization' for food sovereignty; Smith and Lyons review the benefits of organic, fair, and ethical trade for smallholders in Kenya and Uganda; and finally, Thornton looks at urban agriculture in the micro-economies of the South Pacific. These case studies are useful, but also necessary, because otherwise the book would be unmanageable: leaving the reader wanting more in each topic. Nevertheless they all contribute well to the general food crisis debate. In particular, being based in Europe, I found the Antipodean or Cairns Group perspective refreshing.

The editors have, in this collection, brought together some compelling arguments against business as usual. They claim that it is 'a comprehensive condemnation of the global food system' (p. 13). Condemnation, yes; comprehensive, probably not. Nevertheless, it is useful, but like many such collections of conference papers, somewhat time bound. Reading it now in 2014 it already seems somewhat distant. They admit that no grand solution to, or even replacement of, the elegance of market-based solutions is available (p. 228) and bravely offer some pointers towards new sources of ideas that might lead us to a new food utopia (p. 224). One cannot help feeling, though, that two issues have eluded this discussion and need further enquiry for real balance. Firstly, business as usual may have led to a food crisis, but the majority of the global population still get fed ('at what cost' is a reasonable rejoinder). Secondly, the food crisis has begun to lead to some important structural changes. Rural economies in some parts of Africa have responded to higher prices, and the opportunity for capital accumulation. I find across the developing world a new interest and energy is focused on agribusiness and local procurement. The power of this neo-classical response to the food crisis should not be underestimated.

In conclusion, I commend this book to all interested in the political economy of food. Meetings and collections of papers, such as this, are an important contribution

to the ongoing debate on global food provision: adding to the purely economic, crucial social and environmental perspectives and geographical nuance.

## References

Conway, G. (2012) *One Billion Hungry: Can We Feed the World?*, London: Comstock Publishing.

Sachs, J. (2005) *The End of Poverty: How We Can Make It Happen in Our Lifetime*, London: Penguin.

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## Books Received

### **The Insect Cookbook: Food for a Sustainable Planet**

Arnold van Huis, Henk van Gurp, and Marcel Dicke

2014, Columbia University Press, 216 pages, ISBN 9780231166843, \$27.95/£19.95

In *The Insect Cookbook*, two entomologists and a chef make the case for insects as a sustainable source of protein for humans and a necessary part of our future diet. They provide consumers and chefs with the essential facts about insects for culinary use, with recipes simple enough to make at home.

*The Insect Cookbook* features recipes and interviews with chefs, insect farmers, political figures, and nutrition experts, including chef René Redzepi, Kofi Annan, and writer Daniella Martin. This is more than a cookbook, including the cultural background to eating insects, as well as the political obstacles to expanding the trade in insects from countries such as Thailand where they are an accepted part of people's diets. The book presents practical information about cooking with insects: where to buy them, which ones are edible, and how to store and prepare them at home and in commercial spaces. Recipes range from hopper kebabs, chebugschichi, buglava, and jambalaya, to simple quiche and chocolate cake.

The authors all have links to Wageningen University, known for its research interest in insects as food and feed: Van Huis is a professor of tropical entomology at Wageningen; van Gurp is a cooking instructor at the local Rijn IJssel Hotel and Tourism School, and Dicke is professor of entomology at Wageningen University and Rhodes Professor at Cornell University.

### **Edible Insects: Future Prospects for Food and Feed Security, FAO Forestry Paper 171**

2013, Food and Agriculture Organization of the United Nations, Rome, 200 pages, ISBN 9789251075951 (print), e-ISBN 978925107596-8 (PDF), available for free download from <[www.fao.org/docrep/018/i3253e/i3253e00.htm](http://www.fao.org/docrep/018/i3253e/i3253e00.htm)>

This publication marks the first attempt by FAO to document all aspects of the insect food and feed value chain, with the aim of enabling a comprehensive assessment of the contribution of insects to food and feed security. It includes original research from around the world, such as that carried out at Wageningen University. It also incorporates findings from the International Expert Consultation on Assessing the Potential of Insects as Food and Feed in Assuring Food Security, which took place at FAO headquarters in Rome in 2012.

This book covers the role of insects; culture, religion, and the history of entomophagy; insects as a natural resource; their nutritional value; animal feed; processing insects; food safety and preservation; livelihoods from insects; the economics of insect trade; regulatory frameworks; and promoting insects as feed and food.