Feeding the World: An Economic History of Agriculture, 1800–2000. *By Giovanni Federico.* Princeton: Princeton University Press, 2005. xiv + 388 pp. Index, notes, bibliography, figures, tables, appendix. Cloth, $49.50. ISBN: 0-691-12051-X.

Reviewed by Andrew Duffin

About ten thousand years ago, humans began devising ways to manipulate the land so as to produce quantities of food through the creation of processes we now call agriculture. Over the millennia, the methods were improved, which accounted for the steady growth in world populations and the rise and fall of innumerable cultures and nation-states. However, the trajectory of this upward arc became far steeper during the past two centuries, fueled by scientific, technological, and political innovation. Giovanni Federico, in *Feeding the World*, explores the broader economic phenomena associated with modern agriculture, arguing that, for all its problems, government-assisted intensive farming has been a glowing success story.

Federico's scope is ambitious. Within his ten chapters are lengthy analyses of inputs such as land, capital, and labor, the micro- and macroeconomics of innovation, and a comparative study of the agricultural growth patterns in democratic states, socialist regimes, and developing nations—to name just a few. In each section, claims are supported by reams of statistical evidence, both in the text and in a generous appendix. The result is a category of book that current scholars tend to avoid: a synthetic treatment of a broad topic, in this case, two hundred years of agriculture's history.

The appeal of *Feeding the Earth* lies in the consistency of its progressive view of the past. From the first page, which contains the statement that agriculture has been an "outstanding feat," through the conclusion, the author stays true to his premise that intensive farming, with its endless need for higher yields and expanding markets, has provided the greatest good to the greatest number over time. The calculus is simple: activities that improve yields and efficiency are good and those that slow the march of progress are not. Federico unflinchingly applauds state-funded agricultural research and all it has produced, as well as the long-term bonds that were established between governments, industries, and farmers and the relaxation or removal of trade barriers. He

welcomes a strong regulatory state, so long as it improves output, growth, and development.

Yet it is precisely because the thesis is so consistent that it is also far too simplistic. Ultimately, *Feeding the World* is a disappointment because of the author's assumption that productivity necessarily leads to happiness and that all people want the same things out of life, namely, an endless assortment of material goods. Giovanni believes that personal fulfillment can be charted on an *x* or *y* axis, and since the resulting graph on agriculture has ascended steeply, he concludes that we are better off today than at any time in the past. The most obvious omissions here are the cultural and political forces that have affected individuals, nations, and societies. Federico dismisses the famines of recent decades, instead focusing on the output of nations *not* fraught with ethnic strife or struggling to cope with the aftermath of colonialism. He also ignores the cultural impact of agricultural modernization. Indeed, rice production in Bali has gone up since the advent of modern irrigation, but are its citizens—struggling to stay on top of what this agricultural economist calls "the treadmill of agricultural growth"—better off? And are growers in the Nile Valley more secure since the Aswan Dam began preventing the annual release of nutrient-laden sediment?

The author's narrow lens prevents him from comprehending the cultural significance of economic change. It also entails the neglect of related historical subfields. Had Federico consulted important works in social or environmental history (both of which he labels as "trendy"), he might have arrived at less sanguine conclusions about industrial agriculture (p. 3). The reader can only guess at Federico's views on the new cultural history, world history, and social justice movements.

Neither does it comes as a surprise that the author chooses not to tangle with the difficulty of agricultural sustainability—a term he reduces to a "buzzword"—or that he is a strong proponent of genetically modified organisms, which he regards as essential because "the future of humankind is at stake" (pp. 231, 232). As a scholar who works more as an economist than as a historian, his concluding remarks were predictable.

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Washington and Idaho is forthcoming from the University of Washington Press as part of its Weyerhaeuser Environmental Books Series.