

Book Review

Karen Brown & Daniel Gilfoyle, eds.

Healing the Herds: Disease, Livestock Economies, and the Globalization of Veterinary Medicine.

Athens: Ohio University Press, 2010.

Reviewed by Howard A. Doughty

Whether or not you have an interest in cattle-rearing, veterinary practices or the spread of European pastoral intensification to the “third world,” this book provides a template for the discussion of questions of ecology, economics and the relationship among nations, regions and international corporate and regulatory agencies that address, sometimes beneficially and sometimes malevolently, the essential issues involved in feeding the planet.

Like any other animal species, human beings have fundamental needs. If deprived of air for a few minutes, of potable water for a couple of weeks, or of food for much more than a month, even the most robust and resilient among us will perish. Air, though increasingly polluted, remains available. Clean water, though too scarce in some areas and ever more expensive in others, is not yet a universal source of deprivation for more than a billion or so of the least influential among us. Food, on the other hand, is a worry that has recently caught the attention of all but the most complacent consumers and governments. Food prices, according to the World Bank, have climbed about 15% in the past year. As Wayne Roberts wrote in *Now Magazine*, malnutrition and starvation have long been “subjects requiring solemn statements of concern from corporate and government powers ... [but] food now ranks with oil, currency and debt as a topic requiring tracking and control by the elite bodies that manage geopolitics. Food policy,” he says, “has arrived.”

On June 22, 2011, the G-20 held its first meeting of agricultural ministers and undertook to address the most obvious problem, the cost of feeding the world’s human population—both the affluent and the “bottom billion.” The assessment of Oxfam was not encouraging. Officials from the twenty leading economies were deemed to have failed in their tasks. They did not even acknowledge global warming as a factor in food price increases. They produced no plan to provide needed investment in food production in poor countries. They declined to take active measures to deal with the massive diversion of corn, wheat, sugar and other crops into subsidized fossil fuel substitutes. They did agree to examine the “financialization of food commodity futures markets” (speculation, to the uninitiated) but, again, no commitment to regulations, much less to enforcement mechanisms, was made. Only on the question of transparency of actual food supplies were modest improvement evident. An agreement was made to develop a system for the collection of information on food production and food stocks, but agricultural corporations will not be required to disclose information about the supplies they hold. In effect, the global food inventory will be compiled from voluntarily submitted data from “agribusiness”

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In considering both the domestic and global problem of food production, it is plain that the world is in near-desperate need of developing innovative policies to meet this fundamental human need. To cite just one example, tens of millions of environmental refugees have become forced migrants in Africa, where drought and desertification have claimed vast quantities of farm and pasture. This is a problem of at least two decades duration and now, thanks partially to the rapid rise in food prices, it is being folded into a general concern about feeding the global population.

One problem is with conceptualizing, much less solving the problem of dissociation. As people crowd into urban centres, we become severed from our roots in the hinterlands. Modern agricultural technology separates us from the processes that lead to our supplies of fruits, vegetables and animal proteins. We lose our awareness of what it means to plant and to harvest, to pluck and dress a chicken and to understand the reality of the threat posed by flood and drought.

Agricultural enterprises from factory farms to the laboratories that produce chemical fertilizers and genetically modified organisms have become wholly intertwined with the service industries that put food on our tables or in the plastic wrappers and cardboard packages which we obtain in denatured supermarkets and fast food outlets. The anonymity with which a container of fried potatoes or a hamburger arrives in our hands defines our relationship to the animal or the field that was the source of our nutrition. It also implicates us in the hypertechnology of modern agriculture. As environmental activist Derrick Jensen explains:

If your experience is that your food comes from the grocery store and your water comes from the tap, then you are going to defend to the death the system that brings those to you because your life depends on them. If your experience, however, is that your food comes from a land base and that your water comes from a stream, well, then you will defend to the death that land base and that stream. So part of the problem is that we have become so dependent upon this system that is killing and exploiting us, it has become almost impossible for us to imagine living outside of it and it's very difficult physically for us to live outside of it.

An extension of this relationship results in the profound inability for people in the industrial world to comprehend what it would mean to change agricultural practices; most of us, after all, have little or no direct experience with people who fish or farm or otherwise provide the food that we consume today, to say nothing of the amount of food that will be needed as the human population grows—as it is fully expected to do—to approaching nine billion people in the very foreseeable future.

That disconnection must be overcome, for the solutions to the impending human food crisis are not going to come from Monsanto or Archer Daniels Midland. They are not going to come from clever hydroponics or aeroponics schemes deployed in high-rise vertical farming skyscrapers. No doubt certain improvements will be made, but there are also costs involved in agrotechnology, not all of which are economic. Indeed, our experience to date suggests that effective improvements do not necessarily involve a high-technology agronomic experience or, indeed, anything from the developed world except, a willingness to forego interference with some traditional practices and restraint in the imposition of agricultural methods and especially financial and political domination of nominally sovereign governments (but more of that later).

For the moment, I want to make the connection between what is plainly a world-wide problem of food production and distribution to the specific book under review. It has been chosen for consideration partly because its subject matter is of tremendous importance in terms of its own disciplinary interests, the health and maintenance of domestic herd animals (largely cattle) and the nature and role of international veterinary medicine, but also because it provides an excellent introduction to the general questions of global food economies, the potential for pandemics and the ways in which animal husbandry has played a vastly underappreciated part in the development of the global political economy.

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– Alfred W. Crosby

In *Healing the Herds*, Brown and Gilfoyle provide a useful collection of essays that help us understand the general subject of food economies and a specific, acute problem within them. Domestic animals have been with us for thousands of years, and a great deal of human history has been determined in part by the manner in which animal husbandry has been undertaken, expanded and ultimately globalized. Along with our dependence upon all manner of meats and dairy products has come an entire domain of intellectual labour in the form of breeding techniques now refined in the study of genetics, the veterinary sciences, livestock economics and, more recently, agricultural ecology.

Healing the Herds deals most effectively with veterinary science and addresses crucial issues of direct interest to professionals in this and related fields. Of more importance to the general reader is the way in which the editors and their fourteen international contributors address questions of livestock care and integrate these studies into a comprehensive understanding of veterinary science in the evolution of human societies—not merely in the sense that a reliable supply of animal products have been made available, but also in terms of the role of livestock in colonialism, relations between imperial and indigenous populations and, of course, the spread and control of communicable disease.

The bounty for human nutrition is balanced against the threats posed by the pathological consequences of the export and import of species. The internationalization of disease

through much-feared but poorly understood pandemics is, after all, in large part a consequence of the human practice of shipping animals out of their natural habitat into alien ecologies where their presence, perhaps out of range of natural predators, may fundamentally and dreadfully alter the environmental relations in the domain where they have been introduced.

Alfred W. Crosby's *Ecological Imperialism: The Biological Expansion of Europe, 900-1900* (1986) argued forcefully that the "displacement of the native peoples of the temperate zones of the world—North America, Australia and New Zealand by European peoples was the result of the European plants and animals the invaders brought with them, and not just their superior weapons." Several of the contributors to this volume take up and expand on Crosby's work, bringing insights into the particular means whereby settler colonies undertook the transformation of allegedly virgin territories as much through sheep and cattle as through muskets and cannon. Crosby's identification of Old World "portmanteau biota" as instruments of colonial transformation is central to the study of social change. Almost like Hans Zinsser, who's *Rats, Lice and History* (1935), dealt a stunning blow to human self-importance by explaining how some of the world's most famous military battles were won, not because of the tactical brilliance of victorious military commanders but because one side was suffering more grievously from cholera, typhus and dysentery, Crosby has led others to discuss contemporary outbreaks of bovine spongiform encephalopathy and various strains of avian influenza might hint at "blowback" from earlier movements of livestock.

Other themes are addressed. The evolution and status of veterinarians is explored to good effect as we learn more about the professionalization of veterinary medicine and the increasing importance of veterinarians as adjuncts to the food production system. For example, Abigail Woods shows how the role of the veterinarian was transformed in the United Kingdom during World War II, as domestic farm production was called upon to replace imported food that was no longer available because of the hostilities. Others trace the relationship among veterinary medicine, the export of pathogens and, for instance, the destruction of Indonesian draft animals by *rinderpest* (a virus that was so deadly to bovine stocks that it was one of a dozen viruses in the arsenal of the United States of America until the reported termination of its biological weapons program).

Whether addressing the professionalization of veterinary medicine, the effects of animal disease on human beings (Daniel Doepfers, for example, explains the consequences of bovine mortalities for increased human exposure to malaria) or the consequences of the exportation of Old World domesticates and commercial food production methods to New World ecologies, *Healing the Herds* does an exemplary job of showing theoretically and practically how wildlife, domestic livestock, human political economy and, of course, disease carriers operate within a complex ecological context which can be stressed beyond recovery by the introduction of new species, the disruption of existing environmental balances and the quest of human beings for ever growing sources of food supplies.

It is not my purpose (and it certainly is not the intent of Karen Brown, Daniel Gilfoyle and their contributors to give the impression that the study of veterinary medicine, animal disease, health and maintenance are to be understood as merely complicit in the ecological

degradation of the Earth. They do, as I am pleased to report, present their subject matter in an historical frame that allows us to see the science and the commerce of food production from a perspective that may rarely have occurred to us. As such, *Healing the Herds* is a fine model for future work by scholars and practitioners in other areas of public policy—whether related to health regulation, nutrition, foreign aid, economic trade or any other field wherein the public sector is involved in the production and distribution of food.

By taking us down to the ground in the discussion of the scientific, technological, historical, economic and political dimensions of food production, they alert us to the need to take into account factors from the bottom up—from the needs and methods of primary producers and not simply the administration and development of organizational templates imposed by overarching institutions, whether national or international. This sensitivity is especially well developed by William Clarence-Smith, who explores some of the issues that arise when the traditional knowledge of indigenous peoples in Southeast Asia come into contact with the Western scientific paradigm. At the same time, the contributors are very aware and forthright in confronting the ways in which Western veterinary medicine techniques has been much less beneficial than imagined, and sometimes even harmful. Lotte Hughes, for one, speaks of the way in which Maasi cattle were intentionally exposed to East Coast Fever as a means of clearing them off lands coveted by British colonials. Even when obviously nefarious motives were absent, it is too common to come upon European practices that were imposed on indigenous peoples and their agricultural traditions.

To move from the world historical problem of supplying our species with adequate nutrition through the patterns of migration of people and their herds outward into colonial settings (and the migration of animal-based diseases back to the metropolitan countries) and on to specific consideration of the ways and means whereby scientists, veterinary practitioners and public policy planners are involved in addressing the related issues and challenges is to lay out only one of a large number of global dilemmas related to nothing less than questions of the sustainability of our societies, civilizations and even our species.

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– Lester B. Pearson

By starting with one domain—livestock—and seeing how deeply interrelated are variables from corporate agriculture to the spread of the virus *Aphtae epizooticae* (foot and mouth disease) among cloven hooved animals including cattle, water buffalo, sheep, goats, pigs and deer, and to link these, in turn to policies of the International Monetary Fund as well as consumer choices in the advanced, industrial countries is an exceeding large project. It is not, however, excessively so; instead, it is necessary if only to return to fundamentals.

Public sector innovation, at the local, national, regional and international levels cannot succeed if it is wholly reactive, limited and dedicated only to applying locally what has

been determined elsewhere. Innovation in the interest of efficiently implementing toxic policies is not praiseworthy; re-thinking issues and generating non-toxic policies is. As in many policy domains, the re-thinking might begin by revisiting the Jackson Committee (*A Study of the Capacity of United Nations Systems*, 1969). It urged that Western practices no longer be transferred unmodified to underdeveloped nations. “Instead of measuring and cutting the cloth on the spot in accordance with individual circumstances and wants, a ready-made garment is produced and forced to fit afterwards.” Likewise, attention might be paid to the report of former Canadian prime minister Lester B. Pearson’s World Bank Commission (*Partners in Development*, 1969). It veritably begged that international technical and economic arrangements “recognize that measures that make income distribution more equitable not only serve a social objective, but also are necessary for a sustained development effort.”

Instead of following such sage advice, we have built our livestock policies according to the neoliberal demands of the corporate marketplace and paid far more attention to the International Monetary Fund than to the United Nations’ Food and Agriculture Organization. The consequences range from animal rights activists’ complaints about inhumane treatment of poultry and mammalian livestock in North American factory farms to ignoring a healthy biosphere’s need for biodiversity. We have undervalued the potential of small-scale local food suppliers to provide higher standards of nutrition in developing nations. We have also sacrificed a higher standard of living for food producers who could be allowed to thrive were it not for the unfair dumping of heavily subsidized farm products from Western countries under the guise of “free trade.”

The domination of public energy and policy by Big Oil, Big Pharma has been challenged—though not always effectively—in the recent past. Likewise the behaviour of “casino capitalism” and the faults of an unfettered financial marketplace have come under scrutiny—though, again, sensible re-regulation in the wake of neoliberal dominance may still be far away. Now, it is surely time to question the influence of Big Food, with its power to drive an agenda based on quantity not quality, profits not people and narrow economic advantage not enduring ecological sustainability has now made it to the level of international policy debate. Brown and Gilfoyle have provided the kind of informative, insightful and provocative collection that will help connect the dots between veterinary medicine, livestock practices and policies, global patterns of agricultural economics, ecological sustainability and human nutrition. A careful reading of this book would be an excellent place for the generalist to start, but will also meet the professional needs of the practitioner in the field.

About the Author

Howard A. Doughty teaches Political Economy in the Faculty of Applied Arts and Health Sciences at Seneca College in Toronto. He can be reached at <howardadoughty@yahoo.ca>.