

BOOK REVIEW/COMPTE RENDU

Gabriela Pechlaner, *Corporate Crops: Biotechnology, Agriculture, and the Struggle for Control*. Austin: University of Texas Press, 2012, 289 pp. \$55.00 hardcover (978-0-292-72613-0).

Corporate Crops examines shifts in agricultural production caused by the introduction and spread of biotechnology, which Pechlaner argues represents a new “global food regime.” With a North American focus, Pechlaner examines biotechnology by drawing on the voices of people who engage with it, both intentionally and unintentionally (i.e., through involuntary field contamination). Technological change, specifically the increasing reliance on genetically modified organisms (GMOs) in farming, is seen as the main factor driving a global power shift within agriculture that favours transnational corporations like Monsanto. Pechlaner, a sociologist at the University of Fraser Valley in British Columbia, examines several dimensions of this topic through the eight chapters of the book, including the notion of a third food regime, the rise of canola and the fall of wheat, and legal battles over patents on new biotechnologies. The first two chapters draw on a political economy perspective to lay the groundwork for the analysis of interviews and court cases that drives the remainder of the book. The empirical analysis is used to capture the complexity of the spectrum of arguments over biotechnology.

For Pechlaner, the global food regime ushered in by biotechnology is characterized by the logic of *expropriationism* as a new mode of capital accumulation. The concept of expropriationism refers to farmers losing what control they formerly had over their ability to direct their own agricultural production. This is accomplished through technical and legal mechanisms that shape the context of agriculture, including laws, patents, and agreements that prioritize corporate intellectual property rights. The logic of expropriationism runs through everything that is attached to GMOs, with Saskatchewan and Mississippi serving as prime examples of places that are being transformed into monopolistic markets due to this global food regime. Through expropriationism, a handful of large, biotechnology-oriented agricultural corporations have gained a high level of control over seed markets. As biotechnology becomes central to agricultural production, “farmers have been reduced to dealing with one company, and that company decides rules, contracts, loyalty schemes,

and, of course, prices” (p. 241). Pechlaner analyses four separate lawsuits between farmers and Monsanto to illustrate the enormous influence Monsanto’s reliance on legal protections for intellectual property has for the restructuring of agriculture in the United States and Canada. Her analysis leads her to argue that agricultural industry regulations in these countries are relatively weak, and have little to do with protecting farmers or ensuring food security.

A key issue that comes up throughout the book is involuntary contamination. Through interviews with organic farmers, *Corporate Crops* describes concerns about genetically modified seeds blowing into other crops. Once this occurs on an organic farm, these crops are no longer usable in that market. The book examines specific court cases, such as *Hoffman v. Monsanto Canada Inc.*, that result from instances where this has occurred. Due to Monsanto holding a patent over these GMOs, they can seek legal action towards affected parties whose participation in biotechnological farming is unwilling and undesired.

Corporate Crops draws out the complexity of the advantages and disadvantages that these new technologies represent for farmers. Many farmers purchase genetically modified products because the seeds are easy to use, the crops are easier to maintain, and they produce a higher yield. When talking about disadvantages, however, farmers view it as unjust that they are not allowed save seeds and that Monsanto is given the right to inspect their fields at any time for three years after purchasing seeds. They also disagree with signing onerous contracts in order to purchase genetically modified seeds, as it creates a sense that farmers cannot be trusted. As the price of seeds increases, the fact that farmers can no longer save them also contributes to the financial costs of agriculture. As a result, some farmers revert to using their own seeds after dealing with Monsanto.

One of the greatest strengths of this book is Pechlaner’s ability to move across multiple scales of analysis, connecting the political economy of international agricultural development and policy-making with a micro-social analysis of the ways in which farmers negotiate technological change. Using a political economy perspective, she outlines the current power imbalance, lack of control, and social reorganization of food production that characterizes the biotechnological global food regime. Pechlaner also draws on interviews with agricultural producers, lawyers, seed dealers, environmentalists, and agricultural consultants to gain insight into the social dynamics of biotechnology and dependence on agricultural corporations. By bridging analytical scales, Pechlaner draws valuable comparisons between the American and Canadian cases, using them to examine similarities and differences in the evolution of

the biotechnological food regime in the two countries of the global north where it is most advanced.

While this book makes a valuable contribution to the sociology of food production, there are a few limitations worth mentioning. First, the concept of expropriationism drives much of the analysis, and is used throughout the book. However, it is not well-defined in its early uses, and could have been unpacked earlier in the book for readers unfamiliar with the term. Second, Pechlaner argues that biotechnology represents an emerging global food regime. However, she also notes that genetically modified food production is highly concentrated in a handful of countries. The brief discussions about opposition to agricultural biotechnology in the European Union, in particular, illustrate that there is also significant resistance and disruption of moves towards a new global food regime. The analysis relies heavily on four court cases from Canada and the United States. Pechlaner's work is exemplary at analyzing the court cases in terms of how interviewees felt about legal action and the people or corporations involved in them. However, the occasional comparisons between North America and the European Union are particularly interesting, and could have been developed further in order to better answer the question: How global is this "global food regime"? Finally, Pechlaner concludes the book by arguing that trends towards expropriationism should be tempered by policy-making in the interests of protecting farmers and the public. However, the book remains hesitant in terms of providing specific policy recommendations.

Corporate Crops adds to a growing body of literature about biotechnology, conflict over corporate control of agriculture, and struggles for "food justice" (Alkon and Agyeman 2009). Through its focus on social adaptation to technological change, as well as social conflict over new food production technologies, it complements recent work by Young and Matthews (2010) on social conflict over aquaculture in Canada. It also complements Murphy's (2009) recent analysis of the dramatic ice storms that hit Ontario, Quebec, and the northeastern United States during 1998, which argues that instead of further separating society and the environment, new technologies more often intensify social-environmental relationships and produce new risks. This book is a valuable resource for researchers and graduate students interested in the sociology of food, environmental sociology, technology and society, rural sociology, and would be appropriate for a graduate level course in these areas.

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