

Otero, G. (ed.) (2008) *Food for the Few: Neoliberal Globalism and Biotechnology in Latin America*, University of Texas Press (Austin, TX), xiii + 321 pp. \$45 hbk.

Debates on biotechnology in agriculture have primarily focused on government policy, citizen activism and trade disputes among developed nations. Conflicts between biotechnology firms that promote expanded trade in Genetically Modified Organisms (GMOs) and consumer activists and EU regulators who oppose them have framed this discourse. Less often examined is the introduction of biotechnology in the developing world, where most states lack the institutional prowess to assess the risks of transgenic crops, much less regulate them. Otero's edited volume *Food for the Few* addresses these impacts from the vantage point of Latin American agriculture, emphasising the experiences of three of the region's agricultural exporters (Mexico, Argentina and Brazil) with GMOs and biotechnologies such as recombinant Bovine Growth Hormone (rBGH). The overall assessment that emerges from these case studies is profoundly troubling, suggesting that the adoption of new biotechnologies has widened disparities in rural incomes and landholdings while reducing food self-sufficiency. Furthermore, the individual chapters form a cohesive, insightful survey of these trends from a variety of disciplines, including anthropology, economics, geography, political science and sociology.

As several contributors point out, the adoption of transgenic crops in Latin America has differed in crucial ways from the more deliberate process in many developed countries, where environmental and consumer groups have had a significant voice in regulatory oversight. The introduction of transgenic crops in Latin America has coincided with neoliberal restructuring as promoted by the United States, the International Monetary Fund (IMF) and the World Bank. In addition to the lifting of tariffs and reduction of state sectors, structural adjustment has shifted the region's agriculture away from

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food self-sufficiency toward exportation, largely to repay staggering national debts. This has created a prime incentive for some governments to promote transgenic crops as a means of boosting exports, often with little prior environmental review. In Argentina, whose government quickly approved Monsanto's 'Roundup-Ready' soya beans, which resist the effects of the herbicide glyphosate (also manufactured by Monsanto), record agricultural exports have taken place against a sobering backdrop of unintended consequences. Thousands of small-scale farmers unable to afford the new crops and related 'technical package' have been forced out of business, production for domestic markets has plummeted and a rising tide of food insecurity has been accompanied by starvation for the first time in the country's recent history.

These trends are all grimly familiar. During the 1960s, newly developed high yielding varieties (HYVs) of rice and wheat were predicted to be the salvation of burgeoning Third World populations. To its proponents in the developed North, the 'Green Revolution' offered the hope of eradicating hunger in developing regions. As soon became evident, however, crop varieties that were optimised for temperate zones but poorly suited to tropical conditions and dependent on costly inputs proved to be an unmitigated disaster. Across the developing world, the eventual impact of the Green Revolution was deepening rural stratification, rising poverty and, in many regions, even greater hunger than before. Sadly, biotech corporations and their allies in the US Trade Office reprise a version of the same arguments once deployed on behalf of HYVs; i.e. that eradication of hunger requires the adoption of genetically modified food crops. Yet the hazards of biotechnology range far beyond the societal dislocations experienced during the Green Revolution, as transgenic crops pose additional threats to biodiversity. In Mexico, the risk of hybridisation with local varieties threatens the world's greatest remaining genetic reservoir of maize, upon which development of future varieties will probably depend. The most frightening possibility is that the 'terminator gene' implanted in some species to render collected seeds sterile and thereby require farmers to purchase new seeds each year could be transferred to peasant varieties, destroying the subsistence base for millions of small farmers.

While some scholars of globalisation overstate the homogenising effects of neoliberal policies, the present volume does an admirable job of demonstrating how globalisation is refracted by local agency, politics and culture. Hence, while Argentina enthusiastically embraced GMOs, Brazil's attitude has been more ambivalent, with several states declaring themselves 'GM-Free Zones'. Unfortunately, national differences in regulation have limited efficacy in countries where farmers regularly share seeds and experiment with new varieties. Transgenic maize has already hybridised with local varieties in Mexico, and the smuggling of seeds from Argentina has resulted in 70 per cent of Brazil's soybean crop now being illicitly transgenic. If the portrait painted by this powerful and well-researched volume suggests a dire future for Latin American agriculture, a number of contributors also sketch an alternative development path that privileges organic and sustainable agriculture. For that vision to become a reality, however, requires a reconfiguration of the state to include the interests of peasants, consumers and environmentalists—precisely those forces neglected under neoliberalism.

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