tribution and road infrastructure were also limiting factors in improving production, especially in low yield potential areas. In many cases farmers also do not apply fertilizers, sometimes due to the risks associated with rainfed production systems; as a result hybrids do not express their yield potential. In Chapter 8 the determinants of fertilizer use by farmers and the gap between farmers’ maize yields and potential yields are described. The authors state that 1 million more tons of maize could be added to current domestic production (an increase of one third) if farmers improved their soil fertility management practices. Limiting factors include poor yield gain from fertilizer use and fertilizer–grain price ratios. Infrastructure again seems to affect both the price as well as the distribution of fertilizer. Striga or witchweed is one of the pests that limits cereal and maize production in sub-Saharan Africa. Chapter 9 provides an analysis of various options farmers have to control striga. In particular, intercropping and crop rotation can prevent the spread of this parasitic weed. The last chapter of Part III presents the effectiveness of the extension services and the dissemination of information to maize farmers in the more marginal production zones. It was observed that there was a bias against female farmers.

Chapter 11 provides a synthesis of the Kenyan MDBP. Recommendations are provided for future research, especially changes in breeding strategy which can be led by the public sector, and improvements needed in the private fertilizer sector. Especially enhanced collaboration is needed between the public and the private sectors to help improve yields in maize-based cropping systems in Kenya.

This book also contains six appendices that summarize some of the functions and equations applied in the MDBP, as well as tables that include data related to adoption of new technologies and improved maize varieties. Geographic data are depicted in color maps and presented in the front. Overall this book provides an excellent overview of the Kenyan MDBP. The use of GIS to link and combine all spatial data bases is state-of-the-art and provides an excellent example of combining both research and extension activities and evaluating their effectiveness for delivery of information to the resource-poor maize farmer in Kenya.

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Against the Grain is a book that goes beyond emotional and political concerns to examine the implications of the genetically modified food revolution. Each of the 13
chapters concisely presents well researched and documented arguments that provide valuable information on this topic of growing public concern and media attention.

The authors question the key issues put forward as justification for the speed and scope of distribution of genetically modified crops, i.e. a panacea for the world’s food shortage and over-reliance on pesticides. The merits of these arguments are then explored further with regard to the following two issues: first, the concept that the world is indeed facing a food shortage is rebuffed by other experts who believe that food distribution, rather than food production, is the major constraint to alleviating hunger; and second, with genetic manipulation being concentrated on improving herbicide resistance (rather than improving yields), the result may even be increased pesticide exposure for no gain in yields.

The authors describe the origin and evolution of genetically modified crops, including a detailed and frank portrayal of what they see as the driving force behind this revolution. They explore the potential problems related to the fact that a few large chemical corporations are competing for market-share of genetically engineered varieties of major food and fibre-producing crops. The authors provide numerous illuminating examples of possible and probable implications of this revolution in the areas of human and animal health directly and indirectly — including the utmost importance of the maintenance of genetic diversity.

The role of government and its perceived shortfalls in managing some of the ‘hazards’ of such a market structure (i.e. oligopolistic competition) are also discussed in some detail, before the authors offer some preferred roles for government. In particular, the pros and cons of product labelling for genetically modified foods are explored with convincing arguments for providing consumers with sufficient product information with which to make informed purchasing and consumption decisions — placing the responsibility to provide this information squarely on the shoulders of the foods producers. Finally, the authors encourage producers and consumers alike to weigh up the apparent and possible advantages and disadvantages of the genetically modified crop revolution.

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