

BOOK REVIEW

Between a crop and a hard place

Seeds of Concern: The Genetic Manipulation of Plants

DR Murray

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Reviewed by MD Perry

This summer, the UK is conducting the first-ever national attempt to explore the issues around the introduction of a major new technology, through widespread public discussion. That technology is Genetically Modified crops, and this timely book aims to inform interested parties of the science behind GM. This is indeed a substantial undertaking and the pace of the book is rapid and engaging in the early chapters, racing from the discovery of the cell to current advances in biotechnology in the space of a dozen or so pages. A reasonable knowledge of biology is required, given the swiftness of the topics, although this is aided by a fairly comprehensive glossary. The early writing is punctuated with historical references and humorous anecdotes; I particularly enjoyed the image of a furious Gregor Mendel being told he had failed his Botany exam.

Unfortunately, as the book progresses, the science behind some of the claims is at times muddled, on other occasions a little out of date (over a decade) and, in several places, incorrect. This is a great shame and could have been easily avoided. However, the inaccuracies lead one to question all facets of the book and there is a loss of trust in the Author. The errors and omissions may seem trivial to some; however, the GM debate has been dogged by oft-repeated half-truths, which have become accepted as facts simply through their incessant reiteration. We are treated to yet another rendition of poorly referenced and incomplete arguments regarding Monarch butterflies, L-Tryptophan and other assorted scare stories. The book

plumbs the depths of tabloid journalism when discussing herbicide-tolerant crops, by referring to unrelated observations concerning the use of DDT and Agent Orange.

Each chapter concludes with an extensive list of references, from a variety of sources, not all of which are peer reviewed. Although I could not claim to be familiar with the content of all these references, I was concerned by some of the conclusions and extrapolations drawn from the texts I was acquainted with. Again, this damages the integrity of the book. Towards the close of the book, the Author tackles the prickly subject of intellectual property rights. This is a hotly contested area with much at stake financially, and not just for patent lawyers. A number of IP problems are highlighted; can you really patent a SNP? Lamentably, little more is added and the rest of the chapter is principally concerned with plant breeders' rights in Australia and New Zealand, with the issues particular to GM receiving little further attention. The Author does, however, manage to plug his own variety of powdery mildew & IP-resistant pea.

On completing the book I was disappointed, as some of the arguments and suggestions put forward by the Author are valid points, which are subsequently lost within the general *mêlée*. The penultimate chapter in particular, although only very loosely titled, does draw the reader to factors concerning the economic globalisation (GM or otherwise) of agriculture and the need for sustainability. However, what begins as a scientific text becomes a very personal view of GM & world agriculture. The Author's opinions predominate, with little opportunity for the readers to formulate their own conclusions.

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