

Biotechnology is bioterrific, not bioterrifying

Louise Staley reviews

Edging Towards BioUtopia

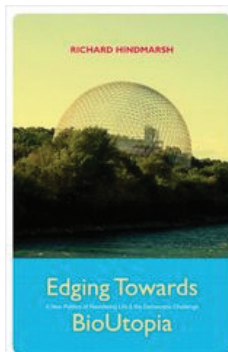
by Richard Hindmarsh
(UWA Press, 2008, 330 pages)

Near the beginning of Richard Hindmarsh's *Edging Towards BioUtopia* he provides, apparently un-self-consciously, a persuasive illustration of the chasm between scientists using rDNA techniques (the creation of artificial DNA) and critics of biotechnology such as himself.

In 1977 an international group of senior scientists under the auspices of the US National Academy of Sciences met to discuss the regulation of the then-new rDNA experiments. Opponents of all rDNA work used threats of violence to successfully demand participation in the meeting. Their spokesperson was accorded a plenary session to present his case while, as Hindmarsh relates, 'his colleagues, dressed up as human mutants, stretched a banner across the stage with an infamous quote from Adolf Hitler: 'We will create the human race.'

The central proposition of this rather odd book is that a self-interested elite, comprising of scientists, government and corporations (especially *multinational* corporations) has deliberately set out to suppress dissent and proper regulation in their pursuit of a 'bio-utopian' future. To make his case, Dr Hindmarsh takes the reader on a largely chronological—yet still strangely disjointed—journey from the discovery of recombinant DNA to the end of the moratoria on growing GM canola in NSW and Victoria. While the focus of the book is the release of agricultural plant GMOs into the envi-

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ronment, the author is keen to include examples of animal experiments gone wrong and controversies over experiments on human-borne viruses, perhaps because the agricultural sphere does not offer sufficient stories of an impending mutant-driven Armageddon.

Despite the publication of over 200 peer reviewed articles demonstrating the safety of GM crops and a plethora of government reports concluding the same thing, *Edging Towards BioUtopia* dismisses this inconvenient body of literature as the product of 'collegiate review' by a closed system of mutually reinforcing pro-GM scientists. The potential and actual benefits of agricultural GM technology are similarly dismissed. The significant reduction in insecticide use in cotton, the switch from highly toxic, cancer causing chemicals, banned in many jurisdictions, to the far more be-

nign Roundup on canola, and the reduction in toxins in corn that cause birth defects—all proven benefits of current GM crops—are not refuted. Future benefits that will raise yields, confer drought tolerance, add functional food benefits and lower production costs are similarly not part of this book. Nowhere does Hindmarsh face the unpalatable fact that the reason GM crops have been so successfully planted in so many countries is because they are good—a marked improvement on other agricultural methods, bringing benefits to both farmers and consumers. Instead, for Hindmarsh, this is all some vast co-dependent conspiracy between big business, big science and big government.

Hindmarsh is correct in identifying the interest of the broader society in scientific research and the continuing controversy over the boundaries of appropriate science. Hindmarsh states his purpose clearly, writing that his 'project, with this book, [is] of addressing a new politics of reordering life and its democratic challenge.' This is an important debate. Whether molecular biologists are experimenting with DNA, medical researchers are working with stem cells, or physicists are colliding atoms, the potential exists for unfettered experimentation to wreak havoc on individuals, societies and ecosystems. Society has a role in questioning and limiting scientific endeavour, hence the evolution of new laws regulating everything from stem cell research, to IVF access, to the subject of this book, genetic engineering.

But political science has long been interested in how regulatory regimes develop. In more recent times, the traditional view of regulatory development—where regulations arise from an agreed public interest response involving impartial experts who formulate policy approaches—has been largely superseded by the view that sees regulation develop as a result of interplay between competing interest groups. Public choice theory,

with its emphasis on rational action, accords with the interest group approach and argues that all interest groups—the bureaucrats, pressure groups and business interests—act self-interestedly in pursuit of their goals.

Yet, in a startling omission from a book dedicated to examining how policy is constructed, *Edging Towards BioUtopia* fails to engage with any of these concepts or research literature. The claim in the book that ‘the genetic choreographing of nature and the environment is as much a social and political endeavour as it is technical,’ is not contextualised within other policy making processes. Instead, the book challenges representative democracy itself; arguing that, as governments of all political hues support biotechnology, neither the Liberal nor Labor parties are representative of ‘the people’ who, in Hindmarsh’s view, oppose biotechnology.

Furthermore, to the extent that interest groups are presented, only anti-GM activists are included and their role is seen solely as selfless defenders of the public good. As a result, groups such as Friends of the Earth and the Australian Conservation Foundation are described as public interest groups while pro-GM voluntary farmers groups such as the Producers Forum are omitted entirely.

In a book critiquing a particular kind of utopia, it is ironic the author is so drawn to another one. The Arcadian idyll of the small farmer utilising organic methods pervades this work. Organic industry figures such as Scott Kinnear or Bob Phelps are heavily cited. A supposed concern against GM crops is that they are ‘monocultures’ yet the same is true of conventional broadacre cropping—how exactly could a farmer harvest multiple crops sown in the same field?

When Hindmarsh tries to tackle agriculture he is confused and dismissive. He argues, for example, that ‘since its instigation, monoculture agriculture, especially industrial agriculture, has wreaked global havoc on ecosystems and people’s living conditions,’—clearly showing a profound lack of understanding of the multiple benefits from industrialised agriculture in reducing global starvation levels. The book is not helped by this openly anti-modern agriculture stance as

it positions the book on the deep green fringe and is therefore unpersuasive to mainstream readers.

A key argument of the book is that Australia has been particularly poorly served by her regulatory regime compared to other countries. Sometimes drowning in minutiae, the book details the development and nature of Australian biotechnology regulation and claims

that ‘Australia’s rDNA regulatory regime is in the vanguard of technical nepotism and subsequent public mistrust.’ Yet there is no investigation of current international regulation. Given 23 countries grew GM crops in 2007, including eight EU members, the US and Canada, there is significant scope to test the proposition that Australia’s regulatory regime is inferior to comparable industrialised countries. Without at least acknowledgement of other regulatory regimes that have led to greater approvals of GM crops the argument that the Australian regulatory system is more captured by biotechnology proponents than other countries is unconvincing.

To the extent international comparisons are given they are ad hoc. For example, mention is made of a Brazilian state declaring itself a GM-free zone yet there is no discussion of the Brazilian regulatory regime that has led to Brazil currently being the third largest grower of GM crops. Similarly, the book asserts Australian regulation is inferior to Europe, particularly in relation to lay representation on approval committees and in the Australian adoption of product rather than process regulation. Yet there is no examination of how Europe manages lay representation or why Europe now has product based regulation.

Farmers, as a key part in any food chain, are a key battleground for both proponents and opponents of biotechnology. As over 85 per cent of Aus-

tralian farms are family run, the extent to which the currently approved GM crops are grown will largely depend on the individual decisions of Australia’s cotton and canola growers. The basis on which that decision will be made will overwhelmingly depend on an assessment of the economic impact of growing GM as opposed to conventional varieties. In relation to the most contested

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crop, canola, over time Australian canola growers came to the view that GM varieties were at least worth trying and this view was reflected in the adoption by all major farming groups of pro-GM policy statements. However, a reader of *Edging Towards BioUtopia* is not presented with this information. Instead, the reliance on the statements of organic industry certification organisations and the small ginger group, the Network of Concerned Farmers presents a highly skewed view of what farmers, particularly the farmers who actually grow canola think of GM varieties.

And this, in the end, is the reason this book fails. A scholarly work would at least strive to present a full picture of the issue under discussion even while still presenting a viewpoint. Yet time and time again *Edging Towards BioUtopia* combines anecdote with selective reporting of data to present a picture that veers very close to suggesting a global conspiracy to force biotechnology on the planet against the wishes of the majority. This polemical approach is bolstered by the highly irritating use of Hindmarsh’s own made-up language—we are presented with bioutopia and its converse biodystopia, we get biocrats, the bioscientific club, biotechnocratic regulation and the biopolicy network and all this occurs within a biopolitical struggle dominated by a bielite towards the creation of a bioindustrial complex.

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