

chapter |

1



Introduction

In simplified language, “genetic modification”, as defined in the Warrant, is:

- the deletion, change or moving of genes within an organism, or
- the transfer of genes from one organism to another, or
- the modification of existing genes or the construction of new genes and their incorporation into any organism.

The Commission considers the term “genetic modification” to be equivalent to and interchangeable with “genetic engineering”.

In terms of the Warrant, the Commission’s inquiry does not extend to the generation of organisms using standard breeding techniques, including cloning, hybridisation or controlled pollination (as these do not involve modification of existing genes). Nor does it cover mutagenesis not involving genetic engineering techniques.

For a fuller discussion of the meaning of genetic modification, see *Genetic Modification: an overview for non-scientists* on pages 362 to 363 of the Reference section of the Report.

1. Introduction

1. The Warrant¹ establishing the Royal Commission on Genetic Modification directed it to receive representations upon, inquire into, investigate and report upon:

- (1) the strategic options available to New Zealand to address, now and in the future, genetic modification, genetically modified organisms and products; and
- (2) any changes considered desirable to the current legislative, regulatory, policy, or institutional arrangements for addressing, in New Zealand, genetic modification, genetically modified organisms, and products.

2. On appointment the Commission instituted a number of processes, on the one hand to inform itself and on the other to consult the general public and obtain views and submissions on the subject matter. Our processes included:

- scoping meetings
- having background papers written by experts in the field
- a public opinion survey
- a total of 15 public meetings, spread throughout New Zealand
- a Maori consultation programme involving 28 workshops and 12 hui
- a Youth Forum
- a public submission process resulting in more than 10,000 written submissions
- formal hearings lasting 13 weeks and involving more than 100 Interested Persons² and nearly 300 witnesses, many from overseas.

3. These activities and their outcomes are described in the appendices. They resulted in a wealth of information being made available to the Commission.

4. People often expressed their views strongly, sometimes passionately, and occasionally angrily, but given the nature of the subject matter, this was to be expected. Although constrained by the need not to pre-judge the outcomes, the Commission experienced many moving moments, especially in the course of the

Maori consultation, as presenters made the forum aware of their deep involvement with matters affecting their whakapapa and culture, and the environment. Likewise, sufferers from rare diseases and their families provided poignant insights.

5. The Commission is grateful to all who contributed to the debate. We cannot possibly mention more than a proportion directly, and indeed there will be a number of significant witnesses to whom the Report will not refer by name. The views of all who have communicated with us through our processes, whether in person or otherwise, have been taken into account in forming our own opinions and in compiling our Report.

6. The Warrant directed the Commission to adopt procedures that would encourage people to express their views on the subject matter, and to consult with the public in a way that allowed people to express their views clearly. The processes outlined above were designed to achieve these ends.

7. At the Commission's public meetings, and in the public written submissions, the great majority of the views expressed opposed any general release of genetically modified organisms, and particularly their introduction to the food chain. People were anxious about the possible consequences of eating genetically modified foods, and also about the risk of damage to the environment.

8. Those members of the public who participated in the public meetings or made written submissions showed a strong sense of conviction that the interests of the country would be best served by maintaining our "clean green" image. People were more open to the use of genetic modification in contained research and for medical purposes. However, the Commission was conscious that participation in these Commission processes was by self-selection. We were uncertain about the extent to which "the average Kiwi" participated. Also, at some meetings those present may have felt the atmosphere was not particularly conducive to the expression of views in favour of genetic modification technology. Largely for these reasons, we commissioned an independent public opinion survey, which was conducted in March and April 2001. This showed a greater balance of viewpoints than the public meetings and submissions suggested. We wish to stress, however, that the terms of reference did not direct us to conduct our inquiry as if it were a referendum. It was made clear that we were to conduct an independent investigation and prepare a report for Government containing the conclusions we had reached.

9. The Commission's programme stimulated interest in the genetic modification debate. Our consultation processes and the coverage they received in the media helped to inform the debate, although, as we shall note later, much

remains to be done in the field of public education. The work of the Commission was well reported by the media, notably *The Dominion* and *Radio New Zealand*. The media treated the inquiry objectively and did not attempt to sensationalise any aspect.

9. We have been extremely well served by the Commission staff, headed by our Chief Executive Officer, Kay Hewitt; Counsel assisting the Commission; the contractors who helped with our programmes, and the team of analysts who have worked painstakingly on the materials received. Details of those involved in the inquiry are set out in appendix 1, and we express our appreciation to them all.

The shape of the Report

The Commission's Warrant directs us, in brief, to explore strategic options for New Zealand in respect of genetic modification. At one extreme New Zealand could become free of all genetically modified material, with no genetically modified products in use or able to be brought into the country, and no research involving genetic modification technology, even in containment. At the other extreme New Zealand could allow full, unrestricted use of genetic modification in all situations. Between these extremes lie any number of intermediate positions, each with its own combination of controls and freedoms, with the degree of control varying with the type of use and situation.

To address this basic strategic question, the Commission has structured its considerations in the following way:

- We start by naming seven core values we believe lie at the heart of this debate (chapter 2).
- These values are then grouped into three spheres or sets of criteria: cultural, ethical and spiritual; environmental and health; and economic and strategic (figure at the end of chapter 2).
- The sets of criteria are outlined (chapters 3, 4, 5).
- The criteria are then used in assessing various potential applications of genetic modification: research, crops, food, medicine (chapters 6, 7, 8, 9).
- There follows a discussion of other key issues: intellectual property, the Treaty of Waitangi, liability (chapters 10, 11, 12).
- We then draw our major conclusion about New Zealand's strategic options in respect of genetic modification (chapter 13).
- Three major recommendations are set out (chapter 14). We then list all our recommendations (chapter 15).
- The addenda to the Report comprise an explanation of genetic modification for non-scientists, the Commission's Warrant, the Treaty of Waitangi, the list of reference notes for each chapter, a glossary of Maori expressions, abbreviations and technical terms, and an index.
- The appendices contain essential supporting material. The first appendix introduces New Zealand and the current status of genetic modification here. It also describes the processes of the Commission, and includes operational detail. The second appendix summarises and analyses submissions from Interested Persons (who took part in the formal hearings), and the final volume covers representations from the public and other activities outside the formal hearings.