



AUSTRALIA • NEW ZEALAND

Public Relations Consultants

Environmental Risk Management Authority

**Awareness of New Organisms Issues and ERMA
2002 General Public Survey**

SURVEY REPORT

August 2002

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1. Research Objectives

The objective of the survey was to evaluate New Zealanders' awareness of ERMA and understanding of the issues around introduction of new organisms (other than GMOs). The survey also asked two questions specifically on GMOs – one unprompted question about which organisation respondents associated with controlling and making decisions about the introduction of GMOs and one about perceptions of risk in relation to various ways of introducing GMOs into New Zealand.

The research will be used to help identify the need for and direction of public awareness activity.

2. Research Methodology

Details of the survey methodology are as follows:

- Telephone survey
- National sample of New Zealanders including metropolitan, provincial urban and rural areas
- Survey carried out among people aged 18+
- Sample size 800 (maximum margin of error +/-4%)
- Survey carried out Monday 24 June to Sunday 7 July 2002. The survey followed and coincided with pre-election activity by political parties (including considerable emphasis on GE by the Green Party). A separate report on the media environment and possible impact on the survey results is attached as appendix 2.

A detailed breakdown of the survey sample is included at the end of this report.

3. Executive Summary

3.1 Key Findings

Awareness of ERMA and HSNO

- There is not widespread awareness of ERMA or its role.
- Just fewer than half (43%) of New Zealanders claim to have heard of ERMA, even after it has been named as the body responsible for administering the HSNO Act. Just over half (53%) claim to be aware of the existence of the HSNO Act.
- At the end of the questionnaire respondents were asked two questions specifically about genetically modified organisms. Despite being told earlier in the interview that ERMA is responsible for the HSNO Act and is the organisation “responsible for making sure that the harmful effects of new plants and animals ...are avoided or reduced as much as possible”, the vast majority could not voluntarily name the organisation that manages the introduction of GMOs. Only just over one in eight (13%) named ERMA, while nearly a quarter (23%) name MAF. More than 40% did not know / did not name any organisation.

Perceptions and understanding of issues around new organisms (non GM)

- New Zealanders are divided on whether there are benefits to the country of introducing new organisms. Approximately 40% believe there is little or no benefit, and the same proportion believe there is ‘some’ or a large benefit (or feel there *may* be).
- The survey asked respondents to categorise the ‘level of effect’ (from ‘no effect’ to ‘a large effect’) that they associated with the introduction of new organisms, and then how acceptable or unacceptable it is for New Zealand to risk these effects. (Note that the ‘effect’ was not defined any further than this at this point in the survey.) The vast majority believes new organisms have a significant effect on New Zealand. And most believe it is unacceptable for New Zealand to risk these effects (even given their acknowledgement of the benefits).
- New Zealanders confidently name ‘risks’ of introducing new organisms. These are firstly the risk of introducing disease (with the new organism), the possible harm to our native life (plant and animal) and the risk of the introduced species ‘taking over’.
- Downstream potential risks to agriculture, industries and other economic effects tended to be cited much less frequently.

- However, when members of the general public consider the possibility of introducing *specific* types of organisms, they seem to be much more open minded. There were five specific scenarios included in the survey:

A new fruit or vegetable to grow and sell commercially
 A new farm animal for commercial use
 A new flower for commercial sale by nurseries
 A new bacteria or virus for control of a pest (such as gorse)
 A new animal to be kept in a zoo

The majority of those surveyed approved of the scenarios included in the survey. In general there is more approval for a fruit/vegetable or flowers to be introduced and produced and sold commercially than there is for an animal (either farm or zoo animal). There is least approval for a bacteria or virus to be introduced, even for control of a pest, such as gorse.

- Generally women were slightly less likely to approve of the specific examples given (particularly the bacteria/virus scenario) – except in the case of a flower for commercial purposes, which they were more approving of than men.

Perceptions of safety of methods of introducing GMOs

- The survey found that New Zealanders seem to have a very clear understanding of the relative safety of methods of introducing GMOs, with the vast majority ranking safety according to the level of containment i.e. lab development, then field testing, and finally release. This shows that ERMA can confidently use these terms in communications if desired, and they will be well understood by the public in terms of their relative safety.

3.2 Conclusions

There is currently a low level of public awareness of ERMA and its role. Even when prompted less than half of New Zealanders claimed to have heard of ERMA. The unprompted response is likely to be closer the 13 percent who identified ERMA as the organisation associated “with controlling and making decisions about the introduction of genetically modified organisms”. This low level of awareness should be of concern to ERMA because it is likely to be a significant barrier to ERMA achieving its objectives. A low level of awareness of ERMA and of the processes it uses to manage risk will impact negatively both on compliance and on public confidence in ERMA’s decisions.

On the other hand the public seems to have a relatively good understanding of the risks associated with introducing new organisms. Ninety percent see introduction of new organisms potentially having ‘some effect’ or ‘a large effect’ on New Zealand. A similar number say that thinking about that level of effect, taking the risk of introducing new

organisms is either 'quite unacceptable' or 'very unacceptable'. This indicates a general unwillingness to take the risk of the *unspecified* introduction of new organisms.

However there appears to be a much more open mind when specific scenarios are described instead (such as those used in the survey). This suggests that any future public information programmes should describe examples rather than the generic "introduction of new organisms". Any information programmes must also have regard to the fact that there are differences between public acceptance of 'vegetable', 'animal' and 'bacterial' categories of organisms (though this is possibly for emotive, rather than rational, reasons).

While many New Zealanders accept that there may be benefits of introducing new organisms, opinion is much more evenly divided on the benefits, with 44% seeing no or little benefit and 44% seeing some or large benefits. A further 9% said whether there were benefits depended on a range of factors including what the organism was, whether it would be harmful to NZ etc.

When looking at the results from a communications perspective, several things are noteworthy:

- New Zealanders have a good grasp of the types of risks associated with the introduction of new organisms, but a less clear idea of how those risks are currently managed.
- When asked generic questions about risks and benefits they are likely to be skeptical about whether introduction of new organisms is worth it. However, when given specific examples of types of new organisms (and the use to which they would be put) approval ratings are higher than the generic response would indicate.
- This, and the 'depends on' response of some respondents when asked about benefits, indicates that additional / more detailed information about what, why and how new organisms may be introduced would have a significant impact on the public's perception of risk and benefit and the balance between the two.

Finally the survey, while short, has established some valuable benchmarks against which to measure the impact of ERMA's public awareness campaigns. These include the 42% 'don't know' and 13% who nominate ERMA as an organisation "associated with the decisions / controlling introduction of GMOs).

The survey has also indicated some potential areas of further research e.g. the greater approval for introduction of new fruit or vegetables (as opposed to animals) may support anecdotal evidence that individuals under-rate the risks associated with importing seeds. Further research into specific examples of risk perception and the reasons for non compliance would help ERMA design more targeted and effective communications.

3.3 Recommendations

When planning its future communications ERMA should:

- Increase its efforts to ensure New Zealanders have a better understanding of ERMA's role and the process for assessing and managing risk. If New Zealanders are to make informed decisions about whether a risk is acceptable in any particular case they need to understand not only the potential risks and benefits, but how the risks will be assessed and managed. This is likely to require a sustained and multi-faceted communications programme that will include:
 - A sustained media programme aimed at increasing awareness of ERMA and of the approval and risk management process. This will likely include targeting of specialist media (e.g. an article in NZ Gardener drawing on research results to highlight risks from uncontrolled introduction of plants) and promotion of stories / backgrounders to mass media such as the Listener, North & South or Documentary New Zealand. Targeting provincial and community media would also help the Authority reach a wider audience.
 - A higher profile for senior management and the board, to give credibility and a human face, and to use that profile to promote understanding of ERMA and its role.
 - User testing / review of website content to ensure key information is highlighted.
 - Greater emphasis on the controls placed on research when ERMA releases decisions (to help the public better understand that risk is managed and how it is managed, so they will have greater confidence in ERMA and the system it administers).
- Use specific examples wherever possible in communications. Specific examples are easier to understand and make it easier for people to reach conclusions about risk / benefit trade-off. It allows them to apply their good general knowledge of potential risks and benefits to specific situations.
- Undertake further research into the reasons for non-compliance. This would include gaining a greater understanding of how risk perception varies depending on the type of organism and circumstances of introduction. It would also attempt to identify the characteristics of non-complying behavior or groups so that targeting of communications could be improved. For example there is anecdotal evidence that risk perception for residents born outside New Zealand varies depending on the culture of origin: hard evidence that this is the case would help ERMA target the groups most likely to take risks and to do so on the basis of demonstrated need.

4. Detailed Findings

Awareness of ERMA and HSNO

Survey participants were asked whether they had heard of the HSNO Act as follows:

In New Zealand there is an Act called the Hazardous Substances and New Organisms Act. This Act was set up to ensure that New Zealand is kept safe from harmful effects of dangerous substances, and new living things introduced to New Zealand. Before I mentioned it, were you aware of this Act?

Claimed Awareness of HSNO Act

| | % |
|------------|----|
| Aware | 53 |
| Not aware | 46 |
| Don't know | 1 |

It is important to remember that this level of awareness includes people who are genuinely aware of the Act, but may also include some people who incorrectly *believe* they have heard of the Act.

The finding shows that only half of New Zealanders (at best) are aware that there is actually an Act in place that deals with hazardous substances and new organisms.

Respondents were then asked whether they had heard of the organisation responsible for running the Act described as follows:

The Act set up a government organisation to run it. This organisation is called the Environmental Risk Management Authority, or ERMA...*

* This, and in the introduction to the next question, were the only times that ERMA was mentioned in the questionnaire.

Claimed Awareness of ERMA

| | % |
|------------|----|
| Aware | 45 |
| Not aware | 54 |
| Don't know | 1 |

Again, this level of awareness may include some people who incorrectly *believe* they have heard of the organisation.

Even so, there is not widespread familiarity with ERMA.

Later, at the end of the interview, respondents were asked which organisations they associated with decisions about, or controlling the introduction of, GMOs. They were not led as to possible organisations (though respondents had been told earlier in the interview that ERMA is responsible for the HSNO Act).

**Organisations Associated with Decisions/Controlling Introduction of GMOs
(Organisations Mentioned Without Prompting)**

| | % |
|--------------------------------|-----------|
| MAF | 23 |
| ERMA | 13 |
| Green Party | 3 |
| Ministry of Health | 2 |
| DSIR | 2 |
| 'The Government' | 2 |
| Government agency/organisation | 17 |
| Other organisation | 8 |
| Don't know | 42 |

NB: various responses each mentioned by 1% or fewer not listed.

Very few people voluntarily associate ERMA with controlling the introduction of GMOs. Though it is possible some respondents have recalled the mention of ERMA earlier in the interview, this has not made a major impact on the level of association of ERMA with managing introduction of GMOs.

The vast majority of New Zealanders are unsure or incorrect about who they associate with managing introduction of GMOs. Clearly there is a real lack of understanding about the infrastructure in place for managing introduction of GMOs.

MAF is the organisation most often linked with managing introduction of GMOs for New Zealand. A host of others are occasionally associated with managing the introduction of GMOs.

Comparing various groups within the population, men appear to be slightly more 'aware' than women of HSNO and ERMA (including ERMA's role controlling introduction of GMOs).

Perceptions and Understanding of Issues Around New Organisms (non GM)

A series of questions was included in the survey to broadly assess the level of concern, or acceptability, around the introduction of new organisms.

Participants were asked to describe what they perceived as the benefit of new organisms to New Zealand.

Perceived Benefit of New Organisms to New Zealand

| | % |
|---------------|----------|
| No benefit | 22 |
| Small benefit | 22 |
| Some benefit | 40 |
| Large benefit | 4 |
| Depends | 9 |
| Don't know | 3 |

New Zealanders are divided over this.

Just over forty percent perceive there to be little or no benefit of new organisms to New Zealand.

However a similar proportion believe there to be 'some', or a large, benefit. And a further nine percent say it 'depends', suggesting that they are at least open to hearing about benefits of new organisms.

Clearly there is some scope for improving understanding of the potential benefits of new organisms to New Zealand (though it is acknowledged that this is not necessarily ERMA's role).

Older groups (those aged 60+) were more likely to associate no benefit with the introduction of new organisms.

Those who stated that the benefit ‘depends’, listed the following:

Depends On...

| | % |
|---|----------|
| Depends what the organism is | 52 |
| Depends what organism is designed to do | 20 |
| Must have proven benefit for NZ | 14 |
| Depends whether it could be harmful to NZ | 14 |
| Depends how it is managed/controlled | 6 |
| Depends whether research has been done | 4 |
| If there are medical benefits | 4 |
| Don't know | 4 |

Participants were asked what level of ‘effect’ they perceived the introduction of new organisms to have on New Zealand and the acceptability of New Zealand taking the risk of this ‘effect’. ‘Effect’ was deliberately not defined for respondents.

Perceived ‘Effect’ of New Organisms on New Zealand

| | % |
|--------------|----------|
| No effect | 2 |
| Small effect | 6 |
| Some effect | 31 |
| Large effect | 59 |
| Don't know | 3 |

The vast majority of New Zealanders believe the effect of new organisms on New Zealand is significant.

And most people believe it is unacceptable for New Zealand to take the risks associated with introducing new organisms, as shown in the table below.

Acceptability of New Zealand Taking Risk of Above ‘Effect’

| | % |
|--------------------|----------|
| Very unacceptable | 47 |
| Quite unacceptable | 34 |
| Quite acceptable | 13 |
| Very acceptable | 3 |
| Don't know | 3 |

Women and those 40+ tend to perceive a slightly larger effect and to view the risk of this effect as slightly less acceptable.

When asked what are felt to be the risks of introduction of new organisms to New Zealand, survey participants responded as follows:

Perceived Risks of New Organisms to New Zealand (Unprompted)

| | % |
|---|----|
| Harmful diseases carried in on plants/animals | 29 |
| Harmful to native flora/plants | 28 |
| Harmful to native fauna/animals | 26 |
| Harmful to native species (not specified) | 21 |
| Growth/spread of new species out of control | 16 |
| Introduced species become the new pests | 13 |
| Poisonous species/plants/animals to humans or animals | 11 |
| Harm NZ's agriculture generally | 11 |
| Negative effects on plant/animal/seafood industries | 9 |
| Possibility of NZ climate change worsen effects | 5 |
| Upset existing ecosystem/balance of nature | 5 |
| Create virus/infection/disease/danger to people | 5 |
| Harm NZ's reputation as producer of safe food | 5 |
| Don't know | 9 |
| None/no risks | 1 |

A wide range of risks is associated with the introduction of new organisms. Everyone surveyed was able to list at least one risk which suggests New Zealanders are confident about their perception of the level of risk represented by new organisms.

The main risks cited reflect concern about:

- possible introduction of disease on introduced species
- possible harm to New Zealand's native species, flora, fauna
- potential risk of the introduced species spreading/'taking over'

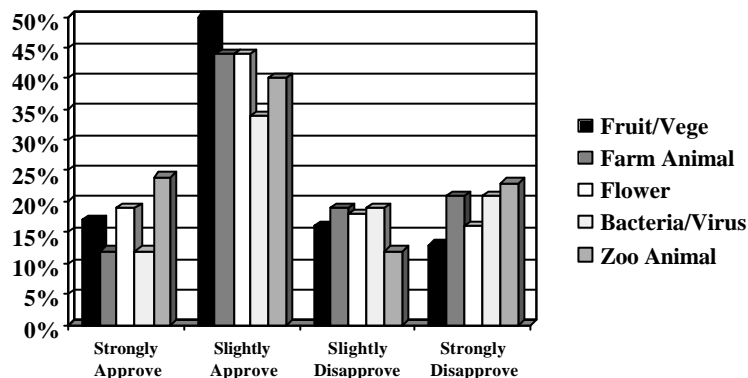
Economic risks (effects on our industries, New Zealand's reputation as a food producer) were mentioned less frequently.

To further assess approval for introduction of new organisms, participants were asked about a number of specific scenarios:

- a new fruit or vegetable to grow and sell commercially
- a new farm animal for commercial use
- a new flower for commercial sale by nurseries
- a new bacteria or virus for control of a pest (such as gorse)
- a new animal to be kept in a zoo

The result is shown in the chart below (for tabular results see Appendix 1). Note that 'Don't Know' responses have not been shown in the chart (less than 5% for all of the scenarios).

Approval of Introduction of New Organisms to New Zealand



The findings are:

- the majority of New Zealanders approve of the specific scenarios, the biggest group being those who moderately approve - this contrasts with the perceived unacceptability of the risks of new organisms reported earlier
- a bacteria or virus, even if it is for control of a pest, receives least approval
- in general there is more approval for fruit/vegetables or flowers being introduced, rather than animals/creatures (whether for farm or zoo)
- opinion is most polarised when it comes to the scenario of a zoo animal

New Zealanders appear to respond better to specific examples of new organisms than to the generic.

In general women were slightly more likely than men to disapprove of the scenarios. However in the case of a bacteria or virus women were much more likely to disapprove and in the case of a new flower for commercial sale in nurseries, approval was greater amongst women than men.

Those aged 60+ were slightly less likely to approve of the new fruit/vegetable and farm and zoo animal scenarios.

Perceptions of Safety of Methods of Introducing GMOs

A question was included in the survey to assess New Zealanders' understanding of the level of safety of different ways of introducing GMOs. The findings are in the table below.

Perceived Level of Safety of Ways of Introducing GMOs

| | Safest % | Next Safest % | Least Safe % |
|-----------------|---------------------|--------------------------|-------------------------|
| Lab development | 87 | 6 | 1 |
| Field testing | 6 | 89 | 2 |
| Release | 1 | 3 | 93 |
| Don't know | 6 | 3 | 3 |

New Zealanders appear to have a very good level of understanding of the relative safety of different ways of introducing GMOs, with the vast majority ranking safety according to the level of containment (i.e. most contained = safest). The findings suggest that ERMA can confidently use these descriptions in communications with the public to explain the ways of introducing GMOs.

5. Sample

| | n | % |
|----------------------------------|------------|------------|
| Sex | | |
| Male | 375 | 47 |
| Female | 425 | 53 |
| Age | | |
| Under 20 years | 32 | 4 |
| 20-29 years | 126 | 16 |
| 30-39 years | 206 | 26 |
| 40-49 years | 155 | 19 |
| 50-59 years | 131 | 16 |
| 60-69 years | 84 | 11 |
| 70+ | 63 | 8 |
| Refused | 3 | <1 |
| Ethnic Group | | |
| European/Pakeha | 655 | 82 |
| Maori | 56 | 7 |
| Pacific Islander | 17 | 2 |
| Chinese | 8 | 1 |
| Indian | 7 | 1 |
| Other Asian | 20 | 3 |
| Other | 6 | 1 |
| Refused | 31 | 4 |
| Household Income | | |
| Under 10,000 | 26 | 3 |
| 10,000-19,999 | 89 | 11 |
| 20,000-29,999 | 69 | 9 |
| 30,000-39,999 | 109 | 14 |
| 40,000-49,999 | 94 | 12 |
| 50,000-69,999 | 129 | 16 |
| 70,000-99,999 | 95 | 12 |
| 100,000+ | 101 | 13 |
| Refused | 88 | 11 |
| Household Shopper | | |
| Yes | 487 | 61 |
| No | 206 | 26 |
| Shared | 107 | 13 |
| Area | | |
| Auckland/Wellington/Christchurch | 379 | 47 |
| Other Urban | 195 | 24 |
| Non Urban | 226 | 28 |
| Total | 800 | 100 |

Appendix 1

Approval of Introduction of Specific New Organisms

New Fruit/Vegetable to Grow and Sell Commercially

| | % |
|---------------------|----|
| Strongly disapprove | 13 |
| Slightly disapprove | 16 |
| Slightly approve | 50 |
| Strongly approve | 17 |
| Don't know | 4 |

New Farm Animal for Commercial Use

| | % |
|---------------------|----|
| Strongly disapprove | 21 |
| Slightly disapprove | 19 |
| Slightly approve | 44 |
| Strongly approve | 12 |
| Don't know | 4 |

New Flower For Commercial Sale By Nurseries

| | % |
|---------------------|----|
| Strongly disapprove | 16 |
| Slightly disapprove | 18 |
| Slightly approve | 44 |
| Strongly approve | 19 |
| Don't know | 4 |

New Bacteria/Virus For Control of a Pest (eg Gorse)

| | % |
|---------------------|----|
| Strongly disapprove | 31 |
| Slightly disapprove | 20 |
| Slightly approve | 34 |
| Strongly approve | 12 |
| Don't know | 4 |

New Animal to be Kept in a Zoo

| | % |
|---------------------|----------|
| Strongly disapprove | 23 |
| Slightly disapprove | 12 |
| Slightly approve | 40 |
| Strongly approve | 24 |
| Don't know | 2 |

Appendix 2

ERMA General Public Survey

Questionnaire (FINAL)

Introduction

Good my name is from ConsumerLink, the survey company.

We are conducting a short survey about plants and animals that people bring into New Zealand. May I speak to the person in your household who is aged 18 or over, and had the last birthday.

REINTRODUCE IF NECESSARY.

IF NECESSARY: The survey will take about 10 minutes.

This survey is about the introduction of living things or organisms, that are new to New Zealand. These are living things such as new animals, plants, fish, insects, bacteria or viruses that people may want to bring into New Zealand from overseas. By '**new organisms**' I don't mean genetically modified organisms or genetic engineering. I am also excluding animal or plant pests that are sometimes introduced by **accident** or **illegally**.

Q1 In New Zealand there is a law called the Hazardous Substances and New Organisms Act. This Act was set up to ensure that New Zealand is kept safe from the harmful effects of dangerous substances, and new living things introduced to New Zealand. Before I mentioned it, were you aware of this Act?

| | |
|------------|---|
| Yes | 1 |
| No | 2 |
| Don't know | 3 |

Q2 The Act set up a government organisation to run it. This organisation is called the Environmental Risk Management Authority, or ERMA (pronounce: *er-ma*). Before I mentioned it, were you aware of this organisation?

| | |
|------------|---|
| Yes | 1 |
| No | 2 |
| Don't know | 3 |

Now some questions just about *new living things* introduced to New Zealand.

Q3 The organisation ERMA is responsible for making sure that the harmful effects of new plants or animals introduced to New Zealand are avoided or reduced as much as possible. I am going to read out a list of statements. Can you tell me which one best describes your feeling of the kind of effect that new plants or animals may have on New Zealand?

READ OUT

| | |
|-----------------------------------|---|
| No effect | 1 |
| A small effect | 2 |
| Some effect | 3 |
| A large effect | 4 |
| Don't know (DO NOT READ) | 5 |

Q4 And thinking about that level of effect, how acceptable or unacceptable do you feel is it for New Zealand to take that risk? Is it...

READ OUT

| | |
|-----------------------------------|---|
| Very unacceptable | 1 |
| Quite unacceptable | 2 |
| Quite acceptable | 3 |
| Very acceptable | 4 |
| Don't know (DO NOT READ) | 5 |

Q5 Now thinking of the potential benefits of new organisms to New Zealand. Can you tell me which of the following statements best describes your feelings about the benefits of bringing new organisms into New Zealand?

READ OUT

| | |
|-------------------------------------|---|
| No benefit | 1 |
| A small benefit | 2 |
| Some benefit | 3 |
| A large benefit | 4 |
| Depends on ..(DO NOT READ) | 5 |
| Don't know (DO NOT READ) | 6 |

IF CODE 5 AT Q5 ASK Q5A. ALL OTHERS GO TO Q6.

Q5A Why do you say that? _____

- Q6** Now thinking about specific types of risks that new organisms may represent to New Zealand. Can you tell me what you feel are the possible risks, if any, of bringing new organisms into New Zealand?

DO NOT PROMPT. PROBE FOR CLARIFICATION. PROBE TO NO. CODE ALL MENTIONED.

Health Risks

| | |
|---|---|
| Poisonous species/plant/animal to humans or animals | 1 |
| Diseases carried on plants or animals that could harm people or other living things | 2 |

Environmental Risks

| | |
|--|---|
| Harmful to native species (not specified) | 3 |
| Harmful to native flora/plants | 4 |
| Harmful to native fauna/animals | 5 |
| Growth/spread of new species out of control | 6 |
| Introduced species become the new pests (e.g. rabbits) | 7 |

Economic Risks

| | |
|--|----|
| Harm NZ's reputation as producer of safe food | 8 |
| Harm NZ's Agriculture generally e.g.. scrapie-free sheep | 9 |
| Harm NZ's tourism industry/NZ as tourism destination | 10 |
| Negative effects on plant/animal/seafood industries | 11 |
| Cost of clean up e.g.. of a virus | 12 |

Other

| | |
|--|----|
| Possibility of NZ climate change could worsen the effects of introduced plants / animals etc | 13 |
| Other (specify) _____ | 14 |
| Don't know | 15 |
| None/no risks | 16 |

I'm now going to ask you some questions about how you feel about the introduction of different kinds of new organisms and the reasons people may want to introduce them.

- Q7** Overall, how do you feel about the introduction of a new kind of fruit or vegetable to New Zealand? The fruit or vegetable would be grown commercially in the field. Would you say that you...

READ OUT. CODE ONE ONLY

| | |
|-----------------------------------|---|
| Strongly disapprove | 1 |
| Slightly disapprove | 2 |
| Slightly approve | 3 |
| Strongly approve | 4 |
| Don't know (DO NOT READ) | 5 |

- Q8** Overall, how do you feel about the introduction of a new kind of farm animal to New Zealand? The animal would be brought in for commercial purposes. Would you say that you...

READ OUT. CODE ONE ONLY

| | |
|-----------------------------------|---|
| Strongly disapprove | 1 |
| Slightly disapprove | 2 |
| Slightly approve | 3 |
| Strongly approve | 4 |
| Don't know (DO NOT READ) | 5 |

- Q9** Overall, how do you feel about the introduction of a new kind of flower to New Zealand? The flower would be sold by nurseries for people to grow in their gardens. Would you say that you...

READ OUT. CODE ONE ONLY

| | |
|-----------------------------------|---|
| Strongly disapprove | 1 |
| Slightly disapprove | 2 |
| Slightly approve | 3 |
| Strongly approve | 4 |
| Don't know (DO NOT READ) | 5 |

- Q10** Overall, how do you feel about the introduction of a new kind of bacteria or virus to New Zealand? The virus would be used to help control a known pest (for example to control gorse). Would you say that you...

READ OUT. CODE ONE ONLY

| | |
|-----------------------------------|---|
| Strongly disapprove | 1 |
| Slightly disapprove | 2 |
| Slightly approve | 3 |
| Strongly approve | 4 |
| Don't know (DO NOT READ) | 5 |

Q11 Overall, how do you feel about the introduction of an exotic animal to New Zealand? The animal would be kept in a zoo. Would you say that you...

READ OUT. CODE ONE ONLY

| | |
|-----------------------------------|---|
| Strongly disapprove | 1 |
| Slightly disapprove | 2 |
| Slightly approve | 3 |
| Strongly approve | 4 |
| Don't know (DO NOT READ) | 5 |

Now just a couple of questions about *genetically modified organisms*. These are organisms that have been developed in a laboratory through the use of genetic engineering techniques.

Q12 Which organisation do you associate with controlling and making decisions about the introduction of genetically modified organisms in New Zealand?

DO NOT PROMPT.

| | |
|---|---|
| ERMA, Environmental Risk Management Authority | 1 |
| MAF, Ministry of Agriculture & Forestry | 2 |
| Ministry of Health | 3 |
| Other Government agency/organisation | 4 |
| Other organisation (specify) _____ | 5 |
| Don't know | 6 |

Q13 Generally there are three ways that a genetically modified organism can be introduced in New Zealand: development in a laboratory, testing out in a field or release into the wider environment. Which of these ways do you see as the safest? And the next safest?

CODE ONE ONLY UNDER EACH COLUMN.

| | Safest | Next Safest | Least Safe |
|-----------------|--|--------------------|-------------------|
| Lab development | 1 | 1 | 1 |
| Field testing | 2 | 2 | 2 |
| Release | 3 | 3 | 3 |
| Don't know | 4 (GO TO DEMOGRAPHIC QUESTIONS) | | |

Lastly, some questions to make sure we have included a cross section of New Zealanders in the survey.

Demographic Questions:

Age Groups

Sex

Type of Employment (including both paid and unpaid categories)

Household Situation/Type

Ethnic Group

Education Level (last level of formal education)

Household Income

Household Shopper

Area/Region

Area type (metro/provincial/rural)

END

Appendix 3

The media environment in which the poll was conducted

While public awareness of GM issues may have been heightened by the media coverage during the General Election, we could find no evidence that this impacted the survey result.

The survey was conducted between 24 June 2002 and 7 July 2002. The timing of the survey was set in May and was determined by the research timetable (which included stakeholder and desk research that feed into the creation of the questionnaire), the availability of the survey team, and the client's requirements.

However the calling of an early election, timed for 27 July, meant that the poll was conducted during the early stages of the election campaign when GM, and in particular the Green's call for an extension to the GM moratorium, was a major campaign issue. This meant that the poll was conducted in an unusual political environment when one of the issues covered by the ERMA survey was receiving a great deal of media attention.

For this reason we have reviewed the major media coverage on GM during the survey period and immediately prior. The highest profile relevant media event during the polling was the launch of the anti-GM Sustainability Council on 3 July. For this reason we looked at whether there were any significant difference in responses prior to 3 July and from 3 to 7 July.

Analysis of media coverage and the survey results show:

- there was no identified coverage of new organism issues other than genetically modified new organism issues during the survey period
- there was intense coverage of GMO issues
- there was no significant media mentions of ERMA in relation to the GM debate (unlike late in the campaign when the Prime Minister emphasised ERMA's role)
- while public awareness of GM issues may have been heightened by the media coverage at the time, we could find no evidence that this impacted the survey results (i.e. there were no significant differences between pre & post 3 July results).

Summary of major media issues (GM and NO) at time of survey

| Issue | Coverage from | Coverage in | Commentary |
|--|---------------|---|---|
| Green Party Poll shows 64% do not want moratorium lifted. | 17/6/02 | Moderate coverage including NZPA and Radio New Zealand interviews | Part of the election build-up from the Greens with poll released, showing 'support' for continuation of moratorium. |
| Greens and Labour – coalition possibilities and debate about GE and the extension to the moratorium | 21/6/02 | Extensive coverage in various media - TV, radio and newspaper | Debate and coverage of this issue has been ongoing in the in the build-up to the election e.g. was one of the issues in the leaders' debate. |
| MADGE – Mothers against genetic engineering | 23/6/02 | Feature on TVNZ 'Sunday'; newspaper & radio also. | Including some political commentary and outline of the GE debate. |
| Survey interviewing begins | | 24/6/02 | |
| Voters support government move to GM – poll | 27/6/02 | Minimal coverage – New Zealand Herald | Results from a poll showing strong support for Government stance on GM. |
| Green and Labour debate Genetic Modification | 28/6/02 | Minimal radio coverage on Radio New Zealand | Radio New Zealand debate. |
| New anti-GM lobby group – Sustainability Council – calls for moderation in gene politics and an extension to moratorium | 3/7/02 | Extensive radio and TV coverage with some newspaper coverage | Launched by Sam Neill, Sir Peter Elworthy and others, calling for a five year extension to the moratorium on GM organisms. Sparked a debate in the media with Fonterra and Federated Farmers |
| Survey interviewing ends | | 7/7/02 | |
| Decision not to release the Law Commission's Report about the legal liabilities in the event of a GM accident – claims of a cover-up | 9/7/02 | Moderate coverage with television, Radio New Zealand news and some newspaper articles | Decision to hold over report until after the election, while information sought overseas. |
| Genetically engineered corn grown in New Zealand - alleged cover-up by the Government. | 10/7/02 | Extensive national coverage, including a TV3 special interview, disrupting normal television and Holmes | Release of Nicky Hagar's book 'Seeds of Distrust' about the alleged cover-up of accidental release of GE corn. Claims strenuously denied by the Government. Main story in most media for 2-3 days, and follow-up during following week. |