National Animal Ethics Advisory Committee

Mission Statement

“To provide independent, high quality advice to the Minister of Agriculture on policy and practices relating to the use of animals in research, testing and teaching.”
# CONTENTS

## 1 FROM THE CHAIR  
4

## 2 NEW ZEALAND ANIMAL WELFARE INFRASTRUCTURE  
4.1 Legal Status of the Committee  
4.2 Infrastructure  
6

## 3 FUNCTIONS  
7

## 4 THE COMMITTEE  
4.1 Selection of Members  
4.2 Members  
4.3 Secretariat  
4.4 Deputy Chairperson  
4.5 Fees  
4.6 Operations  
4.6.1 Meetings  
4.6.2 Performance review  
4.6.3 Annual Reports  
4.6.4 Policy Manual  
7

## 5 CODES OF ETHICAL CONDUCT  
5.1 Transitional Arrangements for Codes of Ethical Conduct  
5.2 Requirements of the Animal Welfare Act  
5.3 Activity during 2001  
5.4 Approvals in Force  
5.5 Approvals Not Made by Animal Ethics Committees  
5.5.1 Non-human Hominids  
5.5.2 Research or Testing in the National Interest  
10

## 6 ANIMAL ETHICS COMMITTEES  
6.1 Communication with Animal Ethics Committees  
6.1.1 Visits  
6.1.2 Newsletters  
6.1.3 Conferences  
6.2 Independent Reviews of Animal Ethics Committees  
13

## 7 THE YEAR’S ISSUES  
7.1 Transgenic Animals/Xenotransplantation  
7.2 Prescription Animal Remedy Use  
14
7.3 Consultation on the Collection of Statistics 14
7.4 Assistance for Animal Ethics Committees 14
  7.4.1 Workshops for Animal Ethics Committee Members 14
  7.4.2 Use of More than One Animal Ethics Committee 14
  7.4.3 Monitoring by Animal Ethics Committees 15
  7.4.4 Guidelines for Drafting an Animal Ethics Committee Protocol Application 15
  7.4.5 Guidelines for Drafting a Code of Ethical Conduct 15
  7.4.6 Good Practice Guide 15
7.5 Inspectors Appointed under the Animal Welfare Act 1999 15
7.6 Liaison with Other Bodies 15
  7.6.1 National Animal Welfare Advisory Committee 15
  7.6.2 Australian and New Zealand Council for the Care of Animals in Research and Teaching 15
  7.6.3 Environmental Risk Management Authority New Zealand 16
  7.6.4 Bioethics Council 16

8 STATISTICS 16
  8.1 Animal Usage 16
  8.2 Source of Animals 17
  8.3 Status of Animals 17
  8.4 Outcome 17
  8.5 Organisation Type 18
  8.6 Animal Re-use 19
  8.7 Purpose of Manipulation 19
  8.8 Grading of Animal Manipulations 19
  8.9 NAEAC Comment 20
  8.10 The Three Rs 21

9 STRATEGIC PLAN 21

APPENDIX 1 Organisations with an Approved Code of Ethical Conduct or with Notified Arrangements to Use an Approved Code 22
APPENDIX 2 Codes of Ethical Conduct Revoked and Notified Arrangements Terminated 26
APPENDIX 3 Animal Usage Report: Summary by Species 27
APPENDIX 4 Animal Usage Report: Summary by Organisation Type 28
APPENDIX 5 Animal Usage Report: Summary According to Severity Scale 29
APPENDIX 6 Publications, Guides to the Animal Welfare Act 1999, Annual Reports, Newsletters (NAEAC News) 30
The Animal Welfare Act had been in force for 12 months at the beginning of 2001. This last year was an opportune time for the National Animal Ethics Advisory Committee (NAEAC) to identify areas of the Act needing attention either in matters of interpretation or eventual amendment. NAEAC also took appropriate actions to help ensure that the activities of the committee are more widely recognised.

Over the past five years, efforts have been made to provide material to animal ethics committees that would be useful in enlarging their knowledge base, while at the same time promoting the aims of the animal ethics system and the key role that NAEAC plays in this system. In this context, a wide survey was undertaken by NAEAC to establish the requirements and effectiveness of the system. Excellent responses were obtained from animal ethics committees, as a result of which NAEAC was able to determine facts about training requirements, background, duration of work and perception of ethical aspects of animal use. Further, it has been a practice of NAEAC in recent years to hold its meetings in different centres throughout New Zealand. As part of its meeting schedule when visiting such centres NAEAC members took the opportunity to meet with members of animal ethics committees and visit various research institutions. This provided additional appreciation of the activities of animal ethics committees.

An important operational objective in the 2001 NAEAC operational plan was to facilitate the development of systems that will ensure consistent performance of animal ethics committees so that the public and the scientific community will remain confident in their role.

To this end NAEAC identified a number of key priority areas. These included:

- increasing the level of public awareness of animal welfare legislation
- meeting the need for continued up-skilling of the educational sector (both primary and secondary)
- ensuring that there is adequate continuing overview of the animal ethics committee system
- improving links with animal ethics committees including NAEAC’s awareness of any problems arising for animal ethics committees
- ensuring satisfactory collection of meaningful animal use statistics and the implementation/amendment of the Animal Welfare (Records and Statistics) Regulations 1999

NAEAC has a legislative role in providing information and advice to animal ethics committees. In 2001 NAEAC issued two new sets of guidelines. The guidelines for animal ethics committees on adequate monitoring were drafted in response to a number of animal ethics committees’ inquiries regarding the statutory requirements for monitoring. The guidelines for drafting an animal ethics committee protocol application were drawn up to assist animal ethics committees to review the criteria listed in section 100 of the Animal Welfare Act 1999. These criteria must be considered during any application for the approval of a project.

NAEAC undertook extensive consultation with animal ethics committees on the collection of animal use statistics and the importance of retaining records. The committee developed a set of recommendations that reflect what NAEAC believes to be in the best interests of animal welfare, public expectations of meaningful statistics, and animal ethics committee system administration. All research, testing and teaching involving live animals in New Zealand must be carried out in accordance with the requirements of the Animal Welfare Act 1999. The Act requires that all such animal use be justified in terms of benefit to society and approved by institutional animal ethics committees. These committees are required to include three independent external members, to ensure community input to the decision making process. NAEAC has been instrumental in
developing the reporting format and the severity scale that has ensured that the
information collected since 1989 is both freely available and more meaningful. Although
the New Zealand system is recognised as one of the most comprehensive in the world,
efforts will continue to pursue refinements and seek improvements.

It was decided to hold a series of workshops for external and other members of animal
ethics committees in early 2002 to provide up-skilling opportunities for committee
members and assist their committees to meet their obligations under the Animal Welfare
Act 1999. Preparatory work for this was completed towards the end of the year.

It is NAEAC’s function to advise the Minister on ethical and animal welfare issues arising
from the use of animals in research, testing and teaching. The two areas of ongoing
advice involve NAEAC’s position on the issue of “killing as a manipulation,” and a
perceived “jurisdictional gap” in the Animal Welfare Act 1999 (as identified by the
Environmental Risk Management Authority) regarding genetic modification research.
Consequently, NAEAC reviewed its policy on genetic modification research during 2001.
This will be published early in 2002. In early 2001, NAEAC made a submission to Royal
Commission on Genetic Modification and provided additional information at the request
of the Commission.

I would like to thank our hard working NAEAC members for their substantial and
significant input into the work of the committee over the past twelve months and the staff
of the Ministry of Agriculture and Forestry for their timely advice and assistance to
the committee.

Wyn Hoadley
Chairperson
2 NEW ZEALAND ANIMAL WELFARE INFRASTRUCTURE

2.1 Legal Status of the Committee

The Animal Welfare Act 1999 came into effect on 1 January 2000. At that date NAEAC became a statutory committee with its functions and membership set in law. Prior to that, NAEAC had existed since 1984 as a committee that the Minister of Agriculture was required by the Animals Protection Act 1960 to establish, using powers under the Ministry of Agriculture and Fisheries Act 1953 and later the Ministries of Agriculture and Forestry (Restructuring) Act 1997.

2.2 Infrastructure

The diagram below illustrates New Zealand's animal welfare infrastructure and the National Animal Ethics Advisory Committee's role within that framework.
3 FUNCTIONS

Section 63 of the Animal Welfare Act prescribes the following functions for NAEAC:

• advising the Minister on ethical and animal welfare issues arising from research, testing and teaching
• providing advice and information on the development and review of codes of ethical conduct
• making recommendations about the approval, amendment, suspension or revocation of codes of ethical conduct
• making recommendations concerning the setting of standards or policies for codes of ethical conduct
• providing information and advice to animal ethics committees
• making recommendations on the appointment of accredited reviewers
• considering the reports of independent reviews of code holders and animal ethics committees
• making recommendations about declaring procedures not to be manipulations (under section 3(3))
• making recommendations about the manipulation of non-human hominids (under section 85)
• making recommendations on the approval of research or testing in the national interest (under section 118(3)).

4 THE COMMITTEE

4.1 Selection of Members

NAEAC members are appointed by the Minister of Agriculture in accordance with sections 64 and 65 of the Animal Welfare Act 1999. The committee has a maximum of 10 members, and a member’s term of office may not exceed three years, although members may be reappointed. Appointments are normally for a maximum of two terms, except in exceptional circumstances.

Under the transitional provisions of the Animal Welfare Act 1999, those individuals who were members of NAEAC when the Act came into force on 1 January 2000 continue in office until the expiry of their term of appointment.

While the Minister has the authority to appoint members, in recent years it has been the policy of successive governments to require appointments to statutory committees to be considered by the Cabinet Appointments and Honours Committee and the Cabinet.

In selecting members (other than the chairperson) the Minister is required to have regard to the following factors:

• the public interest in relation to the use of animals in research, testing and teaching;
• the need for balance between those involved in research, testing and teaching and those who are not; and
• the need for the committee to possess knowledge and experience in the following areas:
  • veterinary science
  • medical science
  • biological science
  • the commercial use of animals in research and testing
  • ethical standards and conduct in respect of animals
  • education issues, including the use of animals in schools
  • environmental and conservation management
  • animal welfare advocacy
  • any other area the Minister considers relevant.
4.2 Members

The table below lists members of the committee during 2001.

<table>
<thead>
<tr>
<th>Members</th>
<th>Expiry of Appointment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mrs Wyn Hoadley LLB (Hons), MA, Dip Tchg, AMNZPI, Barrister (independent Chairperson)</td>
<td>31.10.02</td>
</tr>
<tr>
<td>Mr A C David Bayvel BVMS, DTVM, MPP, MACVSc, MRCVS, Director Animal Welfare, MAF Biosecurity Authority, (Ministry of Agriculture &amp; Forestry nominee - ex officio)</td>
<td>N/A</td>
</tr>
<tr>
<td>Mrs Barbara J Benson BSc, Dip Tchg, Senior Lecturer in Science and Head of Science Department, Dunedin College of Education (nominated by the Ministry of Education)</td>
<td>31.10.03</td>
</tr>
<tr>
<td>Dr Bernhard H H Breier MSc, PhD, Associate Professor, Liggins Institute for Medical Research, University of Auckland (nominated by the Health Research Council of New Zealand)</td>
<td>31.10.01</td>
</tr>
<tr>
<td>Mrs Jeanette Crosado Post-graduate Secretary, University of Otago Department of Medicine, Royal New Zealand Society for the Prevention of Cruelty to Animals National Councillor (nominated by the RNZSPCA)</td>
<td>31.10.02</td>
</tr>
<tr>
<td>Dr Simon C Malpas BSc (Hons), PhD, Senior Lecturer, Department of Physiology, University of Auckland (nominated by the Health Research Council of New Zealand)</td>
<td>31.10.04</td>
</tr>
<tr>
<td>Professor John Marbrook MSc, PhD, FRSNZ, Professor Emeritus, University of Auckland (nominated by the Royal Society of New Zealand)</td>
<td>31.10.03</td>
</tr>
<tr>
<td>Dr W Barry McPherson BVSc, Manager, Veterinary Technical Services and Regulatory Affairs, Merial NZ Ltd (nominated by AGCARM)</td>
<td>31.10.04</td>
</tr>
<tr>
<td>Mrs Lynne M Milne BAgSci (Hons), Project Leader, Landcare Research New Zealand Ltd (nominated by Landcare Research New Zealand Ltd)</td>
<td>31.10.04</td>
</tr>
<tr>
<td>Dr Kathleen H Parton BS, DVM, MS, Senior Lecturer, Institute of Veterinary, Animal and Biomedical Sciences, Massey University (nominated by the New Zealand Veterinary Association)</td>
<td>31.10.04</td>
</tr>
<tr>
<td>Mrs Joanna J Roberts Reg OT, rural tourism operator (nominated by Local Government New Zealand)</td>
<td>31.10.02</td>
</tr>
<tr>
<td>Dr John C Schofield BVSc, MRCVS, Dip ACLAM, Director of Animal Welfare, Research and International Division, University of Otago (nominated by the New Zealand Veterinary Association)</td>
<td>31.10.01</td>
</tr>
</tbody>
</table>

During 2001 Mrs Lynne Milne and Dr Barry McPherson were reappointed for further terms. Dr Bernhard Breier retired from the committee, having served two terms. He was replaced by Dr Simon Malpas. Dr John Schofield also retired from the committee having been a member for nine years. He was replaced by Dr Kathy Parton.
4.3 Secretariat

Mrs Kathryn McKinnon was the committee's secretary during 2001. Mrs Pam Edwards, Ms Linda Carson and Mrs Margaret Handscomb of the Ministry of Agriculture and Forestry's Biosecurity Authority assist with the work of the committee.

4.4 Deputy Chairperson

The Animal Welfare Act requires the committee to elect a deputy chairperson at the first meeting of each year. Professor Marbrook was, once again, elected to fulfil this role.

4.5 Fees

Government policy requires disclosure of fees paid to members of statutory boards and committees. For many years, the daily fee paid to committee members was $250/day ($330/day for the chairperson). The Minister of Agriculture increased the daily fee to $270 for members and $360 for the chairperson with effect from 1 July 2001.

Members are paid the fee for attending meetings with an allowance of a half-day’s fee for preparation time. Members are also reimbursed for travelling expenses. In addition, the chairperson and, on occasion, other members may be paid additional fees for representing the committee at other meetings or for carrying out significant extra work on the committee’s behalf.

The table below lists the fees paid during 2001.

<table>
<thead>
<tr>
<th>Members</th>
<th>Fees paid during 2001 (gross)</th>
</tr>
</thead>
<tbody>
<tr>
<td>W Hoadley</td>
<td>$9750</td>
</tr>
<tr>
<td>D Bayvel(^1)</td>
<td>Nil</td>
</tr>
<tr>
<td>B Benson</td>
<td>$3295</td>
</tr>
<tr>
<td>B Breier</td>
<td>$2050</td>
</tr>
<tr>
<td>J Crosado</td>
<td>$2050</td>
</tr>
<tr>
<td>S Malpas</td>
<td>$405</td>
</tr>
<tr>
<td>J Marbrook</td>
<td>$5700</td>
</tr>
<tr>
<td>B McPherson(^2)</td>
<td>Nil</td>
</tr>
<tr>
<td>L Milne</td>
<td>$1455</td>
</tr>
<tr>
<td>K Parton(^3)</td>
<td>$303</td>
</tr>
<tr>
<td>J Roberts</td>
<td>$3350</td>
</tr>
<tr>
<td>J Schofield</td>
<td>$2850</td>
</tr>
</tbody>
</table>

1. Mr Bayvel is employed by the Ministry of Agriculture and Forestry and thus does not receive meeting fees.

2. Merial NZ Ltd employees forego acceptance of meeting fees in accordance with company policy to act as a good corporate citizen and materially assist public good operations where practicable.

3. Fees are paid directly to the member’s employer to recompense them for time lost from the member’s primary employment.
4.6 Operations

4.6.1 Meetings
NAEAC generally meets four times per year, although six meetings took place in 2001. Some of these meetings are timed to coincide with other events, in order to minimise costs. Temporary working groups are formed to deal with specific issues where necessary. Visitors to the meetings assist the committee with their special expertise or keep the committee informed of significant current developments.

4.6.2 Performance review
Since 1997, the committee has implemented a policy of undertaking an annual performance review. The committee has now adopted a review template that allows it to objectively measure its own performance over the preceding 12 months. The system provides members with an opportunity for considered reflection and debate on the way the committee operates.

The committee critically reviews its performance under the following headings:
- committee approach;
- interface with MAF;
- meetings;
- communications;
- structure;
- performance;
- development.

Results from the 2000 review were analysed early in 2001 and were generally very positive. The next review is scheduled for early 2002.

4.6.3 Annual Reports
Since 2000, NAEAC has been required by law to provide the Minister of Agriculture with an annual report. In practice, the committee has been doing so for many years. A list of these reports and other relevant publications can be found in appendix 6.

4.6.4 Policy Manual
NAEAC is developing a policy manual covering its operations and policy positions, primarily as a reference document for members. It will be issued to new appointees to assist in the induction process. In addition, a list of policies of relevance to animal ethics committees will be printed in NAEAC News.

5 CODES OF ETHICAL CONDUCT

All organisations or individuals which/who manipulate live animals for the purposes of research, testing, teaching are required to do so in accordance with a code of ethical conduct recommended by the committee and approved by the Director-General of the Ministry of Agriculture and Forestry.

5.1 Transitional Arrangements for Codes of Ethical Conduct
Under the transitional provisions of the Animal Welfare Act, all those codes that were approved and in force on 31 December 1999 continue to have approval for a limited period under the new legislation. Similarly, formal arrangements by organisations/individuals to use another organisation's code and animal ethics committee remain in force for a specific period also.
The table below sets out the expiry provisions for transitional codes:

<table>
<thead>
<tr>
<th>Date of approval of original code of ethical conduct</th>
<th>Expiry date of code under the transitional provisions of the Animal Welfare Act</th>
</tr>
</thead>
<tbody>
<tr>
<td>On or before 31/12/90</td>
<td>31/12/02</td>
</tr>
<tr>
<td>1/1/91 – 31/12/94</td>
<td>31/12/03</td>
</tr>
<tr>
<td>On or before 1/1/95</td>
<td>31/12/04</td>
</tr>
</tbody>
</table>

Where there is an arrangement to use another organisation's code, the arrangement is deemed to cease on the date that the code expires.

All code holders and all those who have an arrangement to use a code have been notified of the expiry date of their code or arrangement.

To continue to operate, code holders will have to submit a new code to MAF for approval. This code will have to comply with the provisions of the Animal Welfare Act. It must be accompanied by the report of an independent reviewer, accredited by MAF for the purpose, on the operation of the code of ethical conduct and the animal ethics committee. MAF is required to consult NAEAC on all such applications.

5.2 Requirements of the Animal Welfare Act

From 1 January 2000, new participants in animal research, testing and teaching have been required to follow the provisions of the Animal Welfare Act, which differ somewhat from those of the previous legislation.

Under the Animal Welfare Act, codes of ethical conduct may be approved by the Director-General of MAF, as can amendments, suspensions or revocations of approvals. Except in the case of suspension or revocation at the request of the code holder, NAEAC must be consulted before a decision is made.

For those wanting to use another organisation's code and animal ethics committee, this now simply requires the parties concerned to reach an agreement and for MAF to be notified of the arrangement, in writing, before any manipulations take place. Termination of the arrangement should also be notified to MAF. Such arrangements, or terminations thereof, are not published in the Gazette.

In addition, while major amendments to codes must be approved by MAF, minor amendments may be made by code holders. However, MAF must be provided with written details of the amendments as soon as practicable after the end of the calendar year in which they were made (and no later than 31 March of the succeeding year). Minor amendments are described in the Animal Welfare Act as ones 'that would not materially affect the purposes of the code'.

5.3 Activity during 2001

The table below outlines the applications processed and notifications made during 2001.

| Approvals of new codes | 2   |
| Notification of arrangements to use an existing code | 8   |
| Approvals of amendments to codes | Nil |
| Notifications of minor amendments to a code | Nil |
| Revocations of approved codes or arrangements to use a code | 9   |
| Termination of a notified arrangement to use an existing code | 1   |

Since 2000, in order to heighten awareness of the entire process, details of all codes approved or revoked and arrangements notified or terminated are published in NAEAC News and Biosecurity.
5.4 Approvals in Force

The following table gives details of the number of approvals in force as at 31 December 2001.

| Number of organisations with an approved code | 97 |
| Number of approvals in force                  | 98 |
| Number of animal ethics committees (AECs) established | 46 |
| Number of organisations using another organisation’s AEC | 66 |

It should be noted that one organisation has two approvals in force because it uses a different animal ethics committee for projects carried out in different areas. In addition, some organisations have more than one animal ethics committee (AEC). This usually occurs where work is carried out at more than one campus/location. Furthermore, under the particular provisions of the Department of Education code, two AECs have been established and a number of schools have arrangements to use an existing AEC.

Appendix 1 lists the organisations with an approved code as at 31 December 2001 and indicates those which have their own animal ethics committee(s). Appendix 2 lists those organisations whose codes of ethical conduct have been revoked, most commonly because their activities no longer necessitate a code or after company/organisational mergers where both parties had a code (57 at 31 December 2001).

It is important to note that the Animal Welfare Act contains a provision that approval of a code is personal to the code holder and not transferable without the consent of the Director-General of MAF. Thus, if a company changes its name as a result of a sale or merges with another entity, this has the legal effect of revoking the code of ethical conduct approval unless the assignment or transfer is effected with the Director-General’s consent. This consent is not given retrospectively.

Two companies were affected by this provision in 2001. In both instances new arrangements were made using the new company name.

5.5 Approvals Not Made by Animal Ethics Committees

5.5.1 Non-human Hominids

The Animal Welfare Act precludes the use of non-human hominids for the purposes of research, testing and teaching unless it is carried out with the approval of the Director-General of the Ministry of Agriculture and Forestry and in accordance with any conditions imposed by the Director-General.

The Director-General is required to consult NAEAC before exercising the powers under these provisions. Furthermore, the Director-General may not approve such research, testing or teaching unless satisfied that the use of the non-human hominid is in the best interests of that hominid or that it is in the interests of that species and the benefits to the species outweigh any harm to the individual animal.

No applications to use non-human hominids in research, testing and teaching were received during 2001.

5.5.2 Research or Testing in the National Interest

The Minister of Agriculture may authorise research or testing without the approval of an animal ethics committee where the Minister is satisfied that such research or testing is necessary in the national interest.

In reaching a decision, the Minister is required to take into account whether the research or testing:

- is necessary to protect New Zealand’s biosecurity interests;
• relates to New Zealand's international obligations;
• is necessary to protect human or animal health.

Unless exercising emergency powers under other statutes, the Minister is required to consult NAEAC before making a decision.

No research or testing in the national interest was approved by the Minister during 2001.

6 ANIMAL ETHICS COMMITTEES

6.1 Communication with Animal Ethics Committees

6.1.1 Visits

Once again, NAEAC held some meetings outside Wellington to coincide with visits to some of the code holding institutions. In 2001, meetings were held in Palmerston North and Hamilton. NAEAC members value the opportunity to meet with those involved in research, testing and teaching and those on, or administering, AECs.

6.1.2 Newsletters

NAEAC continues to publish NAEAC News to communicate policy decisions, relevant information and items of interest to AECs and other interested parties. Sufficient copies of each issue of NAEAC News are sent to all AECs to ensure that each AEC member receives an individual copy. However, the onus remains on recipient organisations to ensure that others within the organisation to whom the publication is relevant (eg researchers, teachers, animal care staff, senior executives) do, in fact, have ready access to it.

One issue (number 16) was published in 2001. The second issue for the year went to print at the end of the year and was issued in January 2002.

Another mechanism for communication with AECs is the MAF Biosecurity Authority publication Biosecurity. This six-weekly publication is distributed to those with an interest in animal, plant and forest biosecurity issues and animal welfare. It contains articles which are likely to be of interest and relevance to animal ethics committees and thus all code holders should now be receiving this publication.

6.1.3 Conferences

From time to time various NAEAC members, or members of the secretariat, attend conferences of relevance to the committee's work. Information and proceedings from such conferences is circulated or its availability publicised for the benefit of NAEAC and others involved in the use of animals in research, testing and teaching.

During 2001, the following conferences were attended:

• American College of Laboratory Animal Medicine, 'Mechanisms, Diagnosis and Control of Diseases in Laboratory Animals', Alabama, USA, April 2001;
• New Zealand Veterinary Association Conference, Hamilton, June 2001;
• Australian and New Zealand Council for the Care of Animals in Research and Teaching (ANZCCART)/NAEAC Conference, 'Learning, Animals and the Environment: Changing the Face of the Future', Hamilton, June 2001;
• 34th International Congress of Physiological Sciences, Christchurch, August 2001;
• Australian and New Zealand Society for Laboratory Animal Science (ANZLAS) 25th Annual Conference, Sydney, Australia, September 2001;
• ANZLAS Workshop, ‘Micro-isolator Cage Systems’, Sydney, Australia, September 2001;
6.2 Independent Reviews of Animal Ethics Committees

As indicated in last year’s report, the Animal Welfare Act 1999 makes independent reviews of code holders and their animal ethics committees mandatory. Reviews must take place within two years of code approval for new code holders and prior to the expiry of the code for existing code holders who wish to renew their code approval. The first reviews in the latter category are due by 31 December 2002 while the first review for a new code holder will be due early in 2003.

Reviews may only be carried out by people who have been accredited by the Director-General of the Ministry of Agriculture and Forestry to carry out such reviews. MAF consulted organisations with animal ethics committees on technical and performance standards for such reviewers during 2001 and expects to finalise these early in 2002. His will allow for the accreditation of reviewers in time for reviews to be carried out before the end of the year.

When reviewers become accredited, their names will be published in NAEAC News and Biosecurity.

7 THE YEAR’S ISSUES

7.1 Transgenic Animals/Xenotransplantation

The committee reviewed its policy on transgenic animals and genetic modification research during 2001. It is likely to be finalised and issued in the near future. The committee continues to monitor research and regulatory developments regarding xenotransplantation.

7.2 Prescription Animal Remedy Use

There are a number of animal remedies that may be used only by a veterinarian or under veterinary supervision. However, scientists in research establishments also use these prescription animal remedies (PARs). NAEAC has continued to liaise with ANZCCART to facilitate the development of a code of practice covering the use of PARs by researchers.

7.3 Consultation on the Collection of Statistics

During 2001, NAEAC sent a questionnaire to all animal ethics committees regarding record keeping and statistics to find out how animal ethics committees interpreted various requirements. Results will be used to provide advice to MAF on any proposed amendment to the Animal Welfare (Records and Statistics) Regulations 1999.

7.4 Assistance for Animal Ethics Committees

7.4.1 Workshops for Animal Ethics Committee Members

NAEAC established a subcommittee to organise workshops for AEC members. These are designed to assist the external members in particular. The workshops will be held in 2002 in various centres throughout New Zealand.

7.4.2 Use of More than One Animal Ethics Committee

Organisations (or individuals) that want to carry out animal manipulations for the purposes of research, testing and teaching have two options regarding a code of ethical conduct. They may develop their own code and establish an animal ethics committee or they may find an existing code holder who is willing to let them use their code and submit project proposals to the code holder’s AEC. Concern that some organisations might ‘shop around’ until they found an animal ethics committee willing to approve a particular project led NAEAC to develop a policy statement on the use of multiple AECs.
7.4.3 Monitoring by Animal Ethics Committees

NAEAC foreshadowed in last year’s report that it intended to provide guidance to AECs on the issue of what constitutes adequate monitoring by animal ethics committees of compliance with the code of ethical conduct and project approvals.

The document, Guidelines for animal ethics committees on adequate monitoring, was sent to all animal ethics committees in September 2001.

7.4.4 Guidelines for Drafting an Animal Ethics Committee Protocol Application

Another document prepared for the assistance of AECs is entitled Guidelines for drafting an animal ethics committee protocol application. This was also distributed in September 2001.

7.4.5 Guidelines for Drafting a Code of Ethical Conduct

NAEAC has been developing a guide to assist those who need to draft a code of ethical conduct that meets the requirements of the Animal Welfare Act. It is expected that this will be available early in 2002.

7.4.6 Good Practice Guide

The Code of Recommendations and Minimum Standards for the Care and Use of Animals for Scientific Purposes is, to a large extent, out of date since the Animal Welfare Act 1999 came into force. A working group comprising two NAEAC members and two external people with relevant expertise was established to prepare a ‘good practice guide’ for the care of animals used in research, testing and teaching. This document is at an advanced stage and should be available early in 2002.

7.5 Inspectors Appointed under the Animal Welfare Act 1999

The Animal Welfare Act may be enforced by the Police or by inspectors appointed for that purpose under the Animal Welfare Act. Such inspectors may be Ministry of Agriculture and Forestry staff or from an ‘approved organisation’. Organisations approved to date are the Royal New Zealand Society for the Prevention of Cruelty to Animals and the Animal Welfare Institute of New Zealand.

The use of animals in research, testing and teaching is a specialist area governed by a specific and separate part of the Animal Welfare Act (Part 6). MAF has been reviewing the role of inspectors enforcing Part 6 of the Act to determine whether or not specialist inspectors were needed for this area. NAEAC and approved organisations were consulted by MAF on various options for dealing with enforcement of Part 6. It is likely that all inspectors will continue to have the power to investigate complaints regarding the welfare of animals in research, testing and teaching institutions. A final decision by MAF is expected in the near future.

7.6 Liaison with Other Bodies

7.6.1 National Animal Welfare Advisory Committee

The committee needs to maintain a close association with the activities of the National Animal Welfare Advisory Committee (NAWAC). This inter-committee liaison is facilitated by NAEAC’s chairperson being an ex officio member of NAWAC. In addition, the two committees held a joint half-day meeting to discuss matters of mutual interest to and to receive briefings on matters relevant to both committees.

7.6.2 Australian and New Zealand Council for the Care of Animals in Research and Teaching

NAEAC has continued to liaise with ANZCCART over relevant issues. In addition both parties collaborated to hold a very successful joint conference on, ‘Learning, Animals and the Environment: Changing the Face of the Future’ (see section 6.1.3).
7.6.3 Environmental Risk Management Authority New Zealand

A representative from the Environmental Risk Management Authority (ERMA) attended the joint NAEAC/NAWAC meeting to discuss matters of mutual interest. Dialogue has continued and focuses on the interface between the Animal Welfare Act 1999 and the Hazardous Substances and New Organisms Act 1996.

7.6.4 Bioethics Council

The committee made a submission to the Royal Commission on Genetic Modification and provided additional information to correct erroneous information supplied in other submissions. NAEAC noted with interest the Royal Commission's recommendation to establish a Bioethics Council. This recommendation has been accepted by the Government. The role of the Bioethics Council will be to advise, provide guidelines and promote dialogue on the cultural, ethical and spiritual issues associated with biotechnology. NAEAC looks forward to developing a relationship with the Bioethics Council when it is established.

8 STATISTICS

All code holders are required to keep records specified in the Animal Welfare (Records and Statistics) Regulations 1999 in a readily accessible manner. (For record keeping purposes, the term 'code holder' includes any person or organisation that has made arrangements to use an existing code and animal ethics committee.)

The records must be retained for a period of five years after the year to which they relate and an annual return of the figures for the previous calendar year must be submitted to the Ministry of Agriculture and Forestry by 31 January each year. In addition, the regulations empower the Director-General of MAF or any inspector appointed under the Animal Welfare Act to obtain copies of records or details from them at any time.

The regulations provide penalties for non-compliance, including late submission of returns or supplying false or misleading figures.

8.1 Animal Usage

The year showed a small decrease in the number of animals manipulated - from 324395 in 2000 to 318583 in 2001. This figure includes 977 unborn mammals and 3419 birds prior to hatching.

The animal types most commonly used in 2001 were fish, mice, sheep and cattle.
The numbers of various species manipulated fluctuate from year to year. 2001 was no exception. For several species, this is a marked increase, for others this is a marked decrease. The largest percentage increases were in the numbers of deer, reptiles and horses manipulated although the numbers used are still comparatively small. The largest numeric increase was in the number of fish used, while mice and sheep usage dropped substantially.

Miscellaneous species used in 2001 include cephalopods/crustacea (44% of the miscellaneous species total), ferrets (23%), stoats, wallabies, hedgehogs, bats and alpaca.

8.2 Source of Animals

A nimal users are required to report on the source of the animals manipulated according to specified categories. The table below shows the percentage of animals that came from each source.

<table>
<thead>
<tr>
<th>Source of animals</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breeding units</td>
<td>28.7%</td>
</tr>
<tr>
<td>Commercial sources</td>
<td>11.5%</td>
</tr>
<tr>
<td>Farms</td>
<td>21.1%</td>
</tr>
<tr>
<td>Born during project</td>
<td>1.7%</td>
</tr>
<tr>
<td>Captured</td>
<td>35.6%</td>
</tr>
<tr>
<td>Imported</td>
<td>1.1%</td>
</tr>
<tr>
<td>Public sources</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

Whereas last year, the majority of animals came from breeding units or farms, this year the largest number of animals were captured. This reflects the increase in the number of fish manipulated, as the vast majority of these were captured.

8.3 Status of Animals

A nimal users are required to categorise the status of the animals they use.

<table>
<thead>
<tr>
<th>Status of animals</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>92.8%</td>
</tr>
<tr>
<td>SPF/germ free</td>
<td>3.1%</td>
</tr>
<tr>
<td>Diseased</td>
<td>0.7%</td>
</tr>
<tr>
<td>Transgenic/genetically modified</td>
<td>0.5%</td>
</tr>
<tr>
<td>Protected species</td>
<td>1.4%</td>
</tr>
<tr>
<td>Unborn/prehatched</td>
<td>1.4%</td>
</tr>
<tr>
<td>Other</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

The number of transgenic/genetically modified animals reported as manipulated during 2001 totalled 1556. This is the smallest number of genetically modified animals reported in the last five years.

8.4 Outcome

A ppendix 3 shows animal use by species and the percentage of animals that died or were destroyed during, or after, manipulations. Usually about half of the animals used die or are destroyed during or after the manipulation. For 2001 the figure is 65%. This is accounted for by fish numbers. As was indicated in section 8.1, 2001 saw a large increase (of the order of 30,000) in fish usage. The vast majority of fish (95%) died as a result of the manipulations. Most of these fish were killed in trials of a piscicide for New Zealand registration purposes.
The following histogram depicts information on the proportions of animals surviving for the major species.

8.5 Organisation Type

Appendix 4 shows animal usage by organisation type and the pie chart below depicts this information graphically. The top three user groups were (in order) government, commercial, and crown research institutes. The animal usage of the university sector, which last year increased, dropped back to similar levels reported in the late 1990s. Animal usage in the commercial sector (which had also increased markedly last year) dropped as well. The big increase was in the government sector. Once again, these figures have been skewed by the large piscicide trials referred to in section 8.4.
8.6 Animal Re-use

Only 2.3% of animals used in projects reported in 2001 had been used before. This compares with 17% in 2000 and 5% in 1999.

8.7 Purpose of Manipulation

Organisations provide information on the purpose of the manipulation. The table below shows the breakdown and compares the figures with those reported last year.

<table>
<thead>
<tr>
<th>Purpose of Manipulation</th>
<th>% of animals used in 2001</th>
<th>% of animals used in 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species conservation</td>
<td>1.7%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Environmental management</td>
<td>32.5%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Animal husbandry</td>
<td>5.1%</td>
<td>21.3%</td>
</tr>
<tr>
<td>Basic biological research</td>
<td>14.1%</td>
<td>16.8%</td>
</tr>
<tr>
<td>Medical research</td>
<td>5.5%</td>
<td>9.4%</td>
</tr>
<tr>
<td>Veterinary research</td>
<td>9.7%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Commercial work</td>
<td>24.0%</td>
<td>27.6%</td>
</tr>
<tr>
<td>Teaching</td>
<td>7.2%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Other</td>
<td>0.2%</td>
<td>6.9%</td>
</tr>
</tbody>
</table>

These figures reflect the predominantly animal-focused/agricultural nature of animal-based research, testing and teaching in this country.

The most marked change is the huge increase in animals used for environmental management purposes. Although there has been an increase in this sort of work undertaken by universities, most of the increase is, once again, due to the fish trials.

The other noteworthy change is the decrease in the number of animals used for animal husbandry purposes. Crown research institutes show a small decrease in this type of work, the universities a larger decrease, but the major change has been in the commercial sector, reflecting the overall drop in animal numbers reported by the commercial sector.

8.8 Grading of Animal Manipulations

Animal manipulations are graded according to the following five-point severity scale:

- a manipulation that causes no stress or pain or virtually no stress or pain (‘no suffering or virtually no suffering’)
- a manipulation that causes stress or pain of a minor intensity for a short duration (‘little suffering’)
- a manipulation that causes stress or pain of a minor intensity for a long duration or of a moderate intensity for a short duration (‘moderate suffering’)
- a manipulation that causes stress or pain of a moderate intensity for a long duration or of a severe intensity for a short duration (‘severe suffering’)
- a manipulation that causes stress or pain of a severe intensity for a long duration or of a very severe intensity for any duration (‘very severe suffering’).
The vast majority of animals in the ‘very severe suffering’ category were mice. Other species were guinea pigs, rabbits, rats, stoats and a ferret. Unlike previous years, no hamsters were reported in the ‘very severe suffering’ category as no hamsters manipulations of any sort were reported. In 2000, there was only one reported user of hamsters. This organisation has advised that the requirement for hamsters as a test model fluctuates but it intends to maintain its hamster colony.

8.9 NAEAC Comment

Although there is a slight decrease in the total number of animals used, there is a much more significant decrease, from 47583 in 2000 to 17265 in 2001, in the ‘severe suffering’ and ‘very severe suffering’ categories combined. In addition the percentages of different species has changed.

Reasons for this include:

- the significant increase in fish numbers previously referred to;
- a sharp decrease in mouse use, compared to last year, to more closely reflect numbers used in earlier years. This contributed to the decrease in suffering levels as mice account for the greatest number of animals in the ‘severe suffering’ and ‘very severe suffering’ categories.

In considering the annual animal use statistics, it is important to emphasise that every manipulation having a high negative animal welfare impact must be supported by a strong cost benefit justification. The justification is individually assessed and approved by the appropriate institutional animal ethics committee (all of which contain three external members) before the work may proceed. The final approval of a research proposal is often the result of a significant iterative process and every animal ethics committee benefits from the input and perspective of the three external independent members. N A E A C, as such, plays no role in the decision making process.
NAEAC will continue to promote the concepts of humane science and the Three Rs and to actively pursue specific initiatives which contribute to those strategic goals. These include:

- maintaining contacts with ‘Alternatives Centres’ in Europe and North America;
- actively participating in the triennial international Congress on Alternatives and the Use of Animals in the Life Sciences. The Fourth World Congress will be held in New Orleans in 2002 and will include significant New Zealand input;
- drawing attention to state of the art articles on alternatives and the Three Rs in NAEAC News;
- sponsoring conferences on humane science;
- sponsoring workshops on pain control and its amelioration;
- encouraging regulatory acceptance of alternative non-animal tests where and when applicable;
- encouraging the use of non-animal teaching programmes;
- distributing copies of the publications ANZCCART News and RDS News to all animal ethics committees;
- secondment of a Ministry of Agriculture and Forestry staff member to gain experience working in the United Kingdom Home Office animal research regulatory system.

Although the New Zealand animal use statistics collection system is recognised as one of the most comprehensive in the world, NAEAC will continue to pursue refinements and improvements. A detailed report, Animals and Statistics – A Review was prepared during 2000 to assist NAEAC in this strategic commitment.

In NAEAC’s experience, in all projects associated with moderate, severe or very severe suffering, all possible steps are taken to reduce or ameliorate the negative animal welfare impact. Those steps include a high level of veterinary care where practical, pre- and post-operative pain relief where appropriate and removal from the study or euthanasia immediately the research objective is achieved.

8.10 The Three Rs

New Zealand examples of the successful implementation of the principles of replacement, reduction and refinement of the use of live animals in research, testing and teaching that came to NAEAC’s attention in the last year include:

- the development of accurate mathematical models of electrical activity of the heart;
- the development of equipment for remote wireless monitoring of the cardiovascular system;
- the use of cell culture methods to develop, test and characterise potential cancer treatment drugs isolated from sponges;
- ongoing development of a tissue culture veterinary vaccine, which replaces the use of animals in the vaccine production process;
- ongoing development of computer teaching models to replace the use of animals in undergraduate teaching programmes.

9 STRATEGIC PLAN

The committee produced strategic plans in 1995 and 1998. Operational plans are developed each year based on the strategic plan. NAEAC undertook another strategic planning exercise in November 2001 and a new strategic plan will be the outcome of this.
APPENDIX 1

Organisations with an Approved Code of Ethical Conduct or with Notified Arrangements to Use an Approved Code
(As at 31 December 2001)
*Use another organisation’s animal ethics committee

AgResearch Ltd (4 AECs)
Ruakura Agricultural Centre
Private Bag 3123
HAMILTON
*Agriculture NZ Ltd
(Rangiora)
P O Box 310
RANGIORA
*Agri-Feeds Ltd
Tasman Quay
P O Box 4180
MOUNT MANGANUI SOUTH
*AgriQuality NZ Ltd
P O Box 1654
PALMERSTON NORTH
*Agvax Developments Ltd
P O Box 40-882
UPPER HUTT
AGVET Consultants Ltd
P O Box 46153
Herne Bay
AUCKLAND 1030
Ambreed New Zealand Ltd
P O Box 176
HAMILTON
Ancare New Zealand Ltd
P O Box 36-240
Northcote
NORTH SHORE CITY
*Ancrum Consultanies
18 Vanderbilt Place
Halswell
CHRISTCHURCH
*Animal Health Centre
P O Box 21
MORRINSVILLE
Animal Health Services Centre
Massey University
Private Bag 11-222
PALMERSTON NORTH
*Auckland University of Technology
Private Bag 92 006
AUCKLAND 1020
Auckland Zoological Park
Private Bag
Grey Lynn
AUCKLAND 1

* use another organisation's animal ethics committee.

Baker, Allan J
Centre for Biodiversity & Conservation Biology
Royal Ontario Museum
Toronto

Bayer NZ Ltd
P O Box 2825
AUCKLAND

Bomac Laboratories Ltd
P O Box 76-369
MANUKAU CITY

Caledonian Holdings Ltd PO Box 82
Takanini
SOUTH AUCKLAND

Captec (NZ) Ltd
P O Box 340
Manurewa
MANUKAU CITY

Christchurch Polytechnic
P O Box 22-095
CHRISTCHURCH

Crown Research Institutes
Palmerston North Campus
C/- AgResearch
Grasslands Research Centre
Private Bag 11-008
PALMERSTON NORTH

Department of Conservation
P O Box 10-420
WELLINGTON

Dexcel Ltd
Private Bag 3123
HAMILTON

Diatranz Ltd
P O Box 23-566
Hunters Corner
AUCKLAND

*Diverse Animal Holdings
PO Box 642
WELLINGTON

Duiers NZ Ltd
P O Box 959
HAMILTON

Eliano Animal Health
9 Gladling Place
MANUKAU CITY
*Venous Supplies 1990 Ltd
P O Box 26
TUAKAU
Victoria University of
Wellington
P O Box 600
WELLINGTON
*Virionyx Corporation Ltd
P O Box 91-806
AUCKLAND
Waikato Polytechnic
Private Bag 3036
HAMILTON 2020
*Wakefield Gastroenterology
Research Trust
PO Box 7168
Newtown
WELLINGTON
*Wanganui Veterinary
Services Ltd
PO Box 911
WANGANUI
*Wellington High School
& Community Institute
P O Box 4035
WELLINGTON
*Wilson, Maurice
Institute of Environmental
Science & Research Ltd
Private Bag 92021
AUCKLAND
*Wool Research Organisation
of New Zealand
P O Box 4749
CHRISTCHURCH
*Wrightson Research
P O Box 939
CHRISTCHURCH
*Zenith Technology
Corp Ltd
P O Box 1777
DUNEDIN
APPENDIX 2

Codes of Ethical Conduct Revoked and Notified Arrangements Terminated

(As at 31 December 2001)

- Agrimm Biologicals Ltd
- Alexander and Associates
- Animal Control Products Ltd
- Animal Health Advisory
- Animalz Napier Ltd
- Aoraki Polytechnic
- Arthur Webster (New Zealand) Pty Ltd
- Aspiring Animal Services Ltd
- Auckland Area Health Board (formerly Auckland Hospital Board)
- Autogenous Vaccines
- Bioscience Corporation Ltd
- Biotechnology Division, DSIR
- Central Institute of Technology
- Cook, Trevor George
- Cooks Laboratories
- Coopers Animal Health New Zealand Ltd
- Crusader Meats NZ Ltd
- Ecology Division, DSIR
- Get Real Productions
- Grasslands Division, DSIR
- Health Waikato
- Info-Brok
- Institute of Environmental Science & Research Ltd (formerly NZ Communicable Disease Centre)
- Longburn Adventist College
- Lowe Walker Hawera Ltd
- McGuire, Paul (Calf Collection Services)
- Meat Industry Research Institute of New Zealand
- Medlab Hamilton
- Ministry of Forestry
- Mulvaney, Christopher John
- National College of Security Personnel and Technology
- New Zealand Aluminium Smelters Ltd
- New Zealand Leather and Shoe Research Association Inc.
- New Zealand Sheepac Ltd
- New Zealand Water Management Ltd
- New Zealand Wildlife Rehabilitation Trust
- Orana Park Wildlife Trust
- Palmerston North Campus, DSIR
- Palmerston North Hospital Board (later known as Manawatu-Wanganui Area Health Board)
- Paxarms
- Pfizer Laboratories Ltd
- Rhône-Poulenc (NZ) Ltd
- Roche Products NZ Ltd
- Salmond Smith Biolab Ltd
- Shell Chemicals New Zealand Ltd
- Smith, Catherine H
- Smith Kline Beecham (New Zealand) Ltd (formerly Smith Kline & French NZ Ltd)
- South Auckland Health
- Sovereign Feeds Ltd
- Tauhara Furs Partnership
- Travenol Laboratories (New Zealand) Ltd (later known as Baxter Healthcare Ltd)
- Van Wijk, Niek
- Veterinary Enterprises Ltd
- WatPa Enterprises Ltd
- Wellington Polytechnic
- Wrightson Breeding Services Ltd
- Young’s Animal Health (NZ) Ltd
<table>
<thead>
<tr>
<th>Species</th>
<th>1997</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No used</td>
<td>% dead or destroyed</td>
<td>No used</td>
<td>% dead or destroyed</td>
<td>No used</td>
</tr>
<tr>
<td>Amphibians</td>
<td>842</td>
<td>67</td>
<td>603</td>
<td>90</td>
<td>1152</td>
</tr>
<tr>
<td>Birds</td>
<td>2188</td>
<td>59</td>
<td>10797</td>
<td>40</td>
<td>32067</td>
</tr>
<tr>
<td>Cats</td>
<td>124</td>
<td>1</td>
<td>421</td>
<td>11</td>
<td>479</td>
</tr>
<tr>
<td>Cattle</td>
<td>65069</td>
<td>8</td>
<td>5572</td>
<td>1</td>
<td>30579</td>
</tr>
<tr>
<td>Deer</td>
<td>1553</td>
<td>0.12</td>
<td>1999</td>
<td>4</td>
<td>918</td>
</tr>
<tr>
<td>Dogs</td>
<td>318</td>
<td>36</td>
<td>864</td>
<td>1</td>
<td>389</td>
</tr>
<tr>
<td>Fish</td>
<td>14527</td>
<td>84</td>
<td>99674</td>
<td>9</td>
<td>31761</td>
</tr>
<tr>
<td>Goats</td>
<td>499</td>
<td>13</td>
<td>329</td>
<td>11</td>
<td>1957</td>
</tr>
<tr>
<td>Guinea Pigs</td>
<td>2824</td>
<td>98</td>
<td>207</td>
<td>97</td>
<td>2692</td>
</tr>
<tr>
<td>Hamsters</td>
<td>185</td>
<td>100</td>
<td>492</td>
<td>100</td>
<td>412</td>
</tr>
<tr>
<td>Horses/Donkeys</td>
<td>362</td>
<td>8</td>
<td>285</td>
<td>17</td>
<td>434</td>
</tr>
<tr>
<td>Marine Mammals</td>
<td>0</td>
<td>0</td>
<td>2504</td>
<td>0</td>
<td>619</td>
</tr>
<tr>
<td>Mice</td>
<td>63881</td>
<td>99</td>
<td>53612</td>
<td>91</td>
<td>71277</td>
</tr>
<tr>
<td>Pigs</td>
<td>956</td>
<td>0.12</td>
<td>467</td>
<td>57</td>
<td>858</td>
</tr>
<tr>
<td>Possums</td>
<td>3444</td>
<td>50</td>
<td>5018</td>
<td>67</td>
<td>3161</td>
</tr>
<tr>
<td>Rabbits</td>
<td>1918</td>
<td>97</td>
<td>1984</td>
<td>96</td>
<td>1881</td>
</tr>
<tr>
<td>Rats</td>
<td>6663</td>
<td>98</td>
<td>14244</td>
<td>92</td>
<td>1466</td>
</tr>
<tr>
<td>Reptiles</td>
<td>634</td>
<td>3</td>
<td>2338</td>
<td>2</td>
<td>5369</td>
</tr>
<tr>
<td>Sheep</td>
<td>54716</td>
<td>11</td>
<td>55483</td>
<td>12</td>
<td>42915</td>
</tr>
<tr>
<td>Miscellaneous Species</td>
<td>352</td>
<td>21</td>
<td>1859</td>
<td>42</td>
<td>2387</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>220990</strong></td>
<td></td>
<td><strong>308922</strong></td>
<td></td>
<td><strong>248272</strong></td>
</tr>
</tbody>
</table>
## APPENDIX 4

### Animal Usage Report: Summary by Organisation Type

<table>
<thead>
<tr>
<th>Group</th>
<th>Hamsters</th>
<th>Rats, Mice</th>
<th>Sheep</th>
<th>Guinea Pigs</th>
<th>Cattle</th>
<th>Domestic</th>
<th>Goats</th>
<th>Other</th>
<th>Birds</th>
<th>Fish</th>
<th>All other species</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Universities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>21870</td>
<td>12215</td>
<td>1526</td>
<td>2004</td>
<td>5432</td>
<td>2776</td>
<td>45823</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>45823</td>
</tr>
<tr>
<td>1998</td>
<td>26437</td>
<td>11928</td>
<td>2123</td>
<td>6798</td>
<td>4721</td>
<td>8129</td>
<td>60136</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>60136</td>
</tr>
<tr>
<td>1999</td>
<td>28852</td>
<td>7938</td>
<td>2048</td>
<td>6250</td>
<td>19190</td>
<td>3668</td>
<td>67946</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>67946</td>
</tr>
<tr>
<td>2000</td>
<td>39838</td>
<td>13327</td>
<td>1726</td>
<td>13110</td>
<td>20441</td>
<td>3366</td>
<td>91808</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>91808</td>
</tr>
<tr>
<td>2001</td>
<td>28136</td>
<td>8621</td>
<td>2704</td>
<td>10411</td>
<td>6771</td>
<td>4938</td>
<td>61581</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>61581</td>
</tr>
<tr>
<td><strong>Schools</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>96</td>
</tr>
<tr>
<td>1997</td>
<td>96</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>96</td>
</tr>
<tr>
<td>1998</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>1999</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>2000</td>
<td>56</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>56</td>
</tr>
<tr>
<td>2001</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16</td>
</tr>
<tr>
<td><strong>Polytechnics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>178</td>
<td>27</td>
<td>129</td>
<td>33</td>
<td>4</td>
<td>9</td>
<td>380</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>101</td>
<td>23</td>
<td>102</td>
<td>23</td>
<td>2</td>
<td>2</td>
<td>251</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>78</td>
<td>25</td>
<td>233</td>
<td>45</td>
<td>7</td>
<td>2</td>
<td>390</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>55</td>
<td>20</td>
<td>188</td>
<td>32</td>
<td>4</td>
<td>6</td>
<td>305</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>99</td>
<td>108</td>
<td>242</td>
<td>27</td>
<td>18</td>
<td>6</td>
<td>500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Commercial Organisations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>28151</td>
<td>79205</td>
<td>315</td>
<td>145</td>
<td>9091</td>
<td>45716</td>
<td>107671</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>22549</td>
<td>54644</td>
<td>523</td>
<td>386</td>
<td>95121</td>
<td>86</td>
<td>77716</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>37732</td>
<td>35164</td>
<td>151</td>
<td>6452</td>
<td>3307</td>
<td>41</td>
<td>73205</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>40528</td>
<td>62230</td>
<td>70</td>
<td>103</td>
<td>4274</td>
<td>41</td>
<td>148733</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>37912</td>
<td>44118</td>
<td>118</td>
<td>158</td>
<td>5454</td>
<td>41</td>
<td>82347</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Crown Research Institutes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>6595</td>
<td>28328</td>
<td>1339</td>
<td>145</td>
<td>9091</td>
<td>45716</td>
<td>107671</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>8383</td>
<td>33014</td>
<td>1259</td>
<td>386</td>
<td>95121</td>
<td>86</td>
<td>77716</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>12538</td>
<td>34741</td>
<td>623</td>
<td>6452</td>
<td>3307</td>
<td>41</td>
<td>73205</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>27242</td>
<td>34211</td>
<td>1216</td>
<td>844</td>
<td>4274</td>
<td>41</td>
<td>148733</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>26178</td>
<td>37609</td>
<td>1663</td>
<td>1355</td>
<td>5454</td>
<td>41</td>
<td>82347</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Government Departments</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>40</td>
<td>10156</td>
<td>5</td>
<td>3588</td>
<td>30</td>
<td>976</td>
<td>15255</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>75</td>
<td>11156</td>
<td>6</td>
<td>4090</td>
<td>3786</td>
<td>4124</td>
<td>23539</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>210</td>
<td>15965</td>
<td>26</td>
<td>1722</td>
<td>4124</td>
<td>346</td>
<td>6097</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>239</td>
<td>6115</td>
<td>8</td>
<td>4090</td>
<td>3786</td>
<td>4124</td>
<td>97627</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>407</td>
<td>6115</td>
<td>18</td>
<td>4090</td>
<td>3786</td>
<td>4124</td>
<td>97627</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>18541</td>
<td>449</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>41</td>
<td>19036</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>14694</td>
<td>629</td>
<td>24</td>
<td>1</td>
<td>1</td>
<td>13</td>
<td>12611</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>11892</td>
<td>583</td>
<td>23</td>
<td>2</td>
<td>1</td>
<td>13</td>
<td>12611</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>2832</td>
<td>13</td>
<td>29</td>
<td>2</td>
<td>1</td>
<td>13</td>
<td>12611</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>407</td>
<td>6</td>
<td>18</td>
<td>1</td>
<td>1</td>
<td>13</td>
<td>12611</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>75471</td>
<td>120224</td>
<td>3313</td>
<td>2183</td>
<td>14527</td>
<td>5272</td>
<td>220990</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>72714</td>
<td>110994</td>
<td>4036</td>
<td>10797</td>
<td>99874</td>
<td>12322</td>
<td>310737</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>91227</td>
<td>78451</td>
<td>3078</td>
<td>32067</td>
<td>33515</td>
<td>10934</td>
<td>249272</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>110761</td>
<td>109616</td>
<td>3255</td>
<td>15811</td>
<td>72896</td>
<td>11856</td>
<td>324395</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>92987</td>
<td>90468</td>
<td>4753</td>
<td>16041</td>
<td>103546</td>
<td>10788</td>
<td>318583</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX 5

### Animal Usage Report: Summary According to Severity Scale

<table>
<thead>
<tr>
<th>Animal</th>
<th>No Suffering</th>
<th>Little Suffering</th>
<th>Moderate Suffering</th>
<th>Severe Suffering</th>
<th>Very Severe Suffering</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphibians</td>
<td>570</td>
<td>136</td>
<td>86</td>
<td>0</td>
<td>0</td>
<td>792</td>
</tr>
<tr>
<td>Birds</td>
<td>7751</td>
<td>7172</td>
<td>1022</td>
<td>96</td>
<td>0</td>
<td>16041</td>
</tr>
<tr>
<td>Cats</td>
<td>58</td>
<td>168</td>
<td>83</td>
<td>0</td>
<td>0</td>
<td>309</td>
</tr>
<tr>
<td>Cattle</td>
<td>29726</td>
<td>6451</td>
<td>151</td>
<td>30</td>
<td>0</td>
<td>36358</td>
</tr>
<tr>
<td>Deer</td>
<td>701</td>
<td>2088</td>
<td>112</td>
<td>2</td>
<td>0</td>
<td>2903</td>
</tr>
<tr>
<td>Dogs</td>
<td>71</td>
<td>277</td>
<td>35</td>
<td>0</td>
<td>0</td>
<td>383</td>
</tr>
<tr>
<td>Fish</td>
<td>6289</td>
<td>97239</td>
<td>18</td>
<td>0</td>
<td>0</td>
<td>103546</td>
</tr>
<tr>
<td>Goats</td>
<td>504</td>
<td>340</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>844</td>
</tr>
<tr>
<td>Guinea Pigs</td>
<td>173</td>
<td>311</td>
<td>437</td>
<td>1196</td>
<td>0</td>
<td>2915</td>
</tr>
<tr>
<td>Horses</td>
<td>115</td>
<td>185</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>300</td>
</tr>
<tr>
<td>Marine Mammals</td>
<td>208</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>208</td>
</tr>
<tr>
<td>Mice</td>
<td>1829</td>
<td>33026</td>
<td>23078</td>
<td>255</td>
<td>13747</td>
<td>71935</td>
</tr>
<tr>
<td>Pigs</td>
<td>621</td>
<td>211</td>
<td>26</td>
<td>0</td>
<td>0</td>
<td>858</td>
</tr>
<tr>
<td>Rabbits</td>
<td>109</td>
<td>2336</td>
<td>320</td>
<td>10</td>
<td>10</td>
<td>2785</td>
</tr>
<tr>
<td>Rats</td>
<td>2927</td>
<td>7722</td>
<td>3919</td>
<td>596</td>
<td>188</td>
<td>15352</td>
</tr>
<tr>
<td>Reptiles</td>
<td>171</td>
<td>2807</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2978</td>
</tr>
<tr>
<td>Possums</td>
<td>285</td>
<td>4453</td>
<td>498</td>
<td>89</td>
<td>0</td>
<td>5325</td>
</tr>
<tr>
<td>Sheep</td>
<td>37452</td>
<td>12551</td>
<td>3068</td>
<td>195</td>
<td>0</td>
<td>53266</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>673</td>
<td>691</td>
<td>68</td>
<td>44</td>
<td>9</td>
<td>1485</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>90233</strong></td>
<td><strong>170164</strong></td>
<td><strong>32921</strong></td>
<td><strong>2513</strong></td>
<td><strong>14752</strong></td>
<td><strong>318583</strong></td>
</tr>
</tbody>
</table>
APPENDIX 6

Publications

Guides to the Animal Welfare Act 1999

• Guide to the Animal Welfare Act 1999, policy information paper no. 27
• The Use of Animals in Research, Testing and Teaching – Users Guide to Part 6 of the Animal Welfare Act 1999, policy information paper no. 33

Both documents are available from:

The Manager
MAF Information Bureau
P O Box 2526
Wellington
New Zealand

The documents are also available on MAF’s website at http://www.maf.govt.nz

Annual Reports

• Report for the Period August 1984 - 30 June 1989
• Report for the Period 1 July 1989 - 31 December 1991
• Report for the Period 1 January 1992 - 31 December 1993
• 1994 Annual Report
• 1995 Annual Report
• 1996 Annual Report
• 1997 Annual Report
• 1998 Annual Report
• 1999 Annual Report
• 2000 Annual Report

Newsletters (NAEAC News)

• Issue 1 - August 1991
• Issue 2 - May 1992
• Issue 3 - August 1993
• Issue 4 - October 1994
• Issue 5 - March 1995
• Issue 6 - December 1995
• Issue 7 - May 1996
• Issue 8 - October 1996
• Issue 9 - April 1997
• Issue 10 - November 1997
• Issue 11 - June 1998
• Issue 12 - December 1998
• Issue 13 - July 1999
• Issue 14 - March 2000
• Issue 15 - September 2000
• Issue 16 - March 2001
• Issue 17 – January 2002