National Animal Ethics Advisory Committee

2000 Annual Report
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.”
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1 FROM THE CHAIR

The Animal Welfare Act 1999 established the National Animal Ethics Advisory Committee (NAEAC) and the basis for its membership. The committee is chaired by an independent chairperson and includes up to nine members all appointed by the Minister responsible for the administration of the Act. The Act specifies the need for a balance between those members currently involved in research, testing and teaching and those who are not directly involved. NAEAC members have knowledge and experience in veterinary, medical and biological science, the commercial use of animals in research and testing, and the manipulation of animals in research, testing and teaching, as well as knowledge of ethical standards and conduct in respect of animals, and experience in animal welfare advocacy, environmental and conservation management, and education issues such as the use of animals in schools. There is also a lay member to provide a perspective from the general public.

The membership balance required by the Act has worked particularly well during the year. It has enabled the committee to consider and discuss a variety of matters raised by the new legislation and helped promote the expectation in the science community, and society generally, that the use of animals should occur in a framework of legislative controls that minimises the impact on the animals concerned.

A cornerstone of the committee’s deliberations continues to be the active promotion of the “Three Rs” – the reduction, refinement and replacement of the numbers of animals used in research, testing and teaching – and to encourage the use of non-living or non-sentient alternatives. To this end, NAEAC is developing a policy manual outlining its operations and policy positions to be updated on an annual basis, and guidelines to assist organisations and individuals using live animals in research, testing and teaching in preparing or updating their codes of ethical conduct.

The NAEAC policy of holding its meetings outside of Wellington continues to be beneficial in giving NAEAC members the opportunity to meet with those involved in research, testing and teaching, to liaise with members of animal ethics committees (AECs), and giving effect to its function to provide information and advice to AECs. The series of regional seminars on the new Act for AEC members and staff, jointly sponsored by the Ministry of Agriculture and Forestry (MAF) and NAEAC, was well received by AEC members. A similar series is planned for early 2002 and these will focus on the particular needs of lay and other external members of AECs. The matters raised at these seminars provide valuable feedback for NAEAC in performing its advisory function to the Minister on ethical and animal welfare issues.

NAEAC’s consultative approach through its newsletter (NAEAC News), seminars and participation at conferences, and its liaison with the National Animal Welfare Advisory Committee (NAWAC) and other national and international bodies enables it to perform its advisory role within its limited resources. This is made possible also through the valued advice and assistance of MAF staff throughout the year.

Wyn Hoadley
Chairperson
The diagram below illustrates New Zealand’s animal welfare infrastructure and the National Animal Ethics Advisory Committee’s role within that framework.
3 LEGISLATION

3.1 Legal Status
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.

3.2 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)).
4.1 Membership

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.

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.
<table>
<thead>
<tr>
<th>Members</th>
<th>Expiry of Appointment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mrs Wyn Hoadley LLB (Hons), MA, Dip Tchg, 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, Senior Lecturer and Head of Endocrinology Group, Department of Paediatrics, 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>Mr Mark C Farnsworth MSc, MNZSFM Management services Provider, past president of the N Z School Trustees Association (nominated by the New Zealand School Trustees Association)</td>
<td>31.10.00</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>31.10.00</td>
</tr>
<tr>
<td>Dr W Barry McPherson BVSc, Manager, Veterinary Technical Services and Regulatory Affairs, Merial NZ Ltd (nominated by the NZ Association for Animal Health and Crop Protection (Agcarm))</td>
<td>31.10.01</td>
</tr>
<tr>
<td>Mrs Lynne M Milne BAgSci (Hons), Animal Facility Manager, Landcare Research New Zealand Ltd (nominated by Landcare Research New Zealand Ltd)</td>
<td>31.10.01</td>
</tr>
<tr>
<td>Mrs Joanna J Roberts Reg OT, District Councillor, 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 2000, Mr Farnsworth retired from the committee having served two terms. He was replaced by Mrs Benson. Mrs Roberts also joined the committee, replacing Mrs Barbara Hager, who had resigned late in 1999.
Professor John Marbrook was also reappointed to the committee for a further term.

The Animal Welfare Act requires the committee to elect a deputy chairperson at the first meeting of each year. Professor Marbrook was elected to fulfil this role for 2000.

Committee secretary, Ms Kate Horrey was seconded to the office of the Minister for Biosecurity early in 2000. She was replaced by Mrs Kathryn McKinnon. Mrs Pam Edwards, Ms Linda Carsons and Mrs Margaret Handscomb of the Ministry of Agriculture and Forestry’s Biosecurity Authority assist with the work of the committee.

4.2 Operations
4.2.1 Meetings
NAEAC normally meets four times per year, although five meetings took place in 2000. 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.

4.2.2 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:

- operation of the committee;
- the development of members’ skill base;
- communications;
- achievement of objectives in the operational plan.

The 2000 review was carried out towards the end of the year.

4.2.3 Annual Reports
From 2000, NAEAC is 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. Reports from 1996 onwards can also be accessed by visiting the Ministry of Agriculture and Forestry’s website at http://www.maf.govt.nz/biosecurity/animal-welfare/

4.2.4 Policy Manual
NAEAC has developed a Policy Manual covering its operations and policy positions, primarily as a reference document for members. It is expected to be issued in 2001.
All organisations or individuals which manipulate live animals for the purposes of research, testing or 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 after 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 1999

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 old legislation, codes of ethical conduct were approved by the Minister of Agriculture, on the recommendation of NAEAC, and notice of the approval was published in the Gazette. Similarly, approvals were revoked by the Minister and notice published in the Gazette. When an arrangement to use an existing code was entered into or terminated, this was also subject to scrutiny by NAEAC, approval by the Minister and publication in the Gazette.
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 2000

The table below outlines the applications processed and notifications made during 2000.

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approvals of new codes</td>
<td>Nil</td>
</tr>
<tr>
<td>Notifications of arrangements to use an existing code</td>
<td>17</td>
</tr>
<tr>
<td>Approvals of amendments to codes</td>
<td>Nil</td>
</tr>
<tr>
<td>Notifications of minor amendments to a code</td>
<td>1</td>
</tr>
<tr>
<td>Revocations of approved codes or arrangements to use a code</td>
<td>18</td>
</tr>
<tr>
<td>Termination of a notified arrangement to use an existing code</td>
<td>1</td>
</tr>
</tbody>
</table>

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 2000.

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of organisations with an approved code</td>
<td>97</td>
</tr>
<tr>
<td>Number of approvals in force</td>
<td>100</td>
</tr>
<tr>
<td>Number of animal ethics committees (AECs) established</td>
<td>45</td>
</tr>
<tr>
<td>Number of organisations using another organisation’s AEC</td>
<td>74</td>
</tr>
</tbody>
</table>

As pointed out in last year’s report, a few organisations have more than one approval in force for particular reasons. This may be a transitional arrangement after company mergers or it may be because the organisation uses the animal ethics committee of different code holders 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 (sic) 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 2000 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 (51 at 31 December 2000). This does not include codes that have been revoked and replaced by a new code because of revision of a code or a change to the organisation’s name.

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.

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 2000.

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 2000.
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 2000, the May meeting was held in Christchurch and the July and November meetings in Auckland.

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 each AEC 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.

Two issues (numbers 14 and 15) were published in 2000.

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 AECs 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 2000, the following conferences were attended:

- RNZSPCA 67th Annual Conference, Christchurch, June 2000;
- New Zealand Veterinary Association Conference, Auckland, June 2000;
NAEAC and MAF representatives participated in successful panel discussions on the Animal Welfare Act and the role of NAEAC and the National Animal Welfare Advisory Committee at both the RNZSPCA and NZVA conferences.

In July 2000, members also attended a seminar presented by Dr Michael Festing, an internationally renowned research scientist with the Toxicology Unit of the UK Medical Research Council at the University of Leicester. Entitled ‘Doing Better Animal Experiments’, the seminar was also attended by students, researchers and animal ethics committee members. Notes from the seminar were published in *NAEAC News No. 16*.

### 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 is currently developing technical and performance standards for such reviewers.

No reviewers have been appointed to date. 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 revised its policy on transgenic animals during 2000. It will be finalised and issued in 2001.

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 under the Agricultural Compounds and Veterinary Medicines Act covering the use of PARs by researchers.

7.3 Training
7.3.1 Training Survey
The results of NAEAC’s 1999 survey were published in NAEAC News No. 15.

7.3.2 Animal Welfare Act Seminars
The Ministry of Agriculture and Forestry, in conjunction with NAEAC, hosted seminars in six locations around the country to inform staff and AEC members from organisations involved in research, testing and teaching about the implications of the new legislation.

A number of questions were raised at these seminars that NAEAC considered would be of interest or relevance to AECs generally. These questions, and answers to them, were published as an insert to NAEAC News No. 16.

7.4 Monitoring by Animal Ethics Committees
One issue that was raised repeatedly at the seminars on the Animal Welfare Act (see 7.3.2 above) was what constitutes adequate monitoring by animal ethics committees of compliance with the code of ethical conduct and project approvals.

The issue is a complex one. The range of work carried out in this country is diverse. While monitoring laboratory animals on the same premises may be relatively straightforward, monitoring livestock on farms at some distance from the AEC may be time consuming and costly and monitoring wildlife studies at very remote locations could be extremely difficult.

However, NAEAC would like to provide AECs with guidance on the issue. To this end, it has initiated discussion on the subject and envisages being able to distribute material to AECs in 2001/2002.
7.5 Liaison with Other Bodies

7.5.1 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.

7.5.2 Independent Biotechnology Advisory Council
The Government established this body in May 1999 to meet the need for advice and informed public debate on biotechnology. NAEAC has continued to maintain contact with IBAC on matters of mutual interest.

7.5.3 Australian and New Zealand Council for the Care of Animals in Research and Teaching
NAEAC has continued to liaise with ANZCCART over relevant issues. The relationship is enhanced by a NAEAC member also being a member of the New Zealand board of the council.

7.5.4 Environmental Risk Management Authority New Zealand
NAEAC met with representatives from the Environmental Risk Management Authority (ERMA) during the year to discuss matters of mutual interest. Dialogue has continued and has covered such topics as welfare implications for genetically modified animals and the interface between hazardous substances legislation and the Animal Welfare Act especially in relation to vertebrate pest control.
Figures for the calendar year 2000 represent the first statistics on animal manipulation collected under the Animal Welfare (Records and Statistics) Regulations 1999.

All code holders are required to keep records specified in the regulations 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 an increase in the number of animals manipulated – from 249272 in 1999 to 324395 in 2000.

The animal types most commonly used in 2000 were mice, fish, sheep and cattle.

Overall, there appears to be no pattern to the changes in numbers by species. For almost all species there is a significant difference between the numbers used in 1999 and the numbers used in 2000. For several species, this is a marked increase, for many other species this is a marked decrease. The largest increases were in the numbers of fish, sheep and mice manipulated.
For the first time, research, testing and teaching involving crayfish, lobsters, crabs, octopus and squid required ethical approval and statistical recording. Only one organisation reported manipulating cephalopods or crustacea. These are incorporated in the miscellaneous species category. Miscellaneous species used in 2000 include cephalopods/crustacea (39%), stoats, ferrets, hedgehogs and wallabies.

8.2 Source of Animals
Animal users are required to report on the source of the animals manipulated according to the following categories: breeding unit, commercial sources, farm, born during project, captured, imported into New Zealand and public sources. The majority of animals came from breeding units or farms (34% and 36% respectively).

8.3 Status of Animals
Animal users are required to categorise the status of the animals they use. These categories are: normal, SPF/germ free, diseased, transgenic, protected species, embryonated eggs, prenatal stages and other. Given the current public interest in genetic technology, it seems appropriate to provide information on the number of transgenic animals used in New Zealand research, testing and teaching. For 2000 this figure was 4819 animals (1.5% of the total) reported by four animal ethics committees. (This compares with 0.7% of animals reported by five animal ethics committees in 1999.) The vast majority of animals used were normal (87%).

8.4 Outcome
Appendix 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 2000, the figure is 33%. This appears to be accounted for by greater numbers of three of the most commonly used species (fish, mice and sheep) remaining alive at the end of the research, testing or teaching. The following histogram depicts this information 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) commercial, universities and crown research institutes. The animal usage of both the university and commercial sectors grew significantly during 2000, while crown research institutes’ usage remained almost static. As expected, schools used the fewest animals, accounting for less than 0.02% of the total.

8.6 Animal Re-use

Almost 17% of animals used in projects reported in 2000 had been used before. This compares with 5% re-use reported in 1999.

8.7 Purpose of Manipulation

As indicated above, organisations provide information on the purpose of the manipulation. The categories, with the percentage of animals in that category in brackets, are: species conservation (2.3%), environmental management (1.1%), animal husbandry (21.3%), basic biological research (16.8%), medical research (9.4%), veterinary research (7.3%), commercial work (27.6%), teaching (7.3%) and other (6.9%). These figures reflect the predominantly animal-focused/agricultural nature of animal-based research, testing and teaching in this country.

8.8 Grading of 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’).

Appendix 5 summarises this information by species. The figures indicate that almost 80% of animals experienced no or little suffering (33.3% of animals experienced ‘no suffering’, 45.3% experienced ‘little suffering’, 6.7% experienced ‘moderate suffering’, 2% experienced ‘severe suffering’ and 12.7% experienced ‘very severe suffering’). This shows an increase in the number of animals in the ‘severe’ or ‘very severe’ suffering categories (2.8% in 1998, 10.6% in 1999 and 14.7% in 2000).

As well as an increase in the number of animals in the ‘severe suffering’ and ‘very severe suffering’ categories, a greater variety of animals are also represented in 1999. The vast majority of animals in the ‘very severe suffering’ category were mice. Other species were guinea pigs, hamsters, rats and sheep. Most of the animals in the ‘severe suffering’ category were rodents.

8.9 NAEAC Comment

NAEAC is aware that the increased number of animals in the ‘severe’ and ‘very severe suffering’ categories will give rise to concern. It has, therefore, taken steps to try to ascertain from the small number of animal ethics committees that reported animals in these categories, the reasons for this increase.

The following important contributing factors have been identified:

• increased testing requirements to protect human health

• increased animal health research activity (for example, development of veterinary vaccines)
changes in the categorisation of projects so that projects are more likely to be placed in a higher category plus the combining of all animals in a project so that all are assigned to a higher category, even though some animals will experience a lower level of suffering.

Although organisations have to provide information on the purpose of the manipulation as well as the severity, it is not always possible to match these because institutional returns are consolidated. However, it is interesting to note that most animals were used for animal health research and testing or testing to protect human health (rather than medical research).

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 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. NAEAC, as such, plays no role in the decision making process.

NAEAC was, however, instrumental in developing the severity scale which has ensured that the statistical information collected since 1998 is both more transparent and more meaningful. 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
- 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.

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, post-operative pain relief where appropriate and removal from the study or euthanasia immediately the research objective is achieved.

8.10 The Three Rs

In future annual reports, NAEAC intends to provide some selected 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.

The following are relevant examples:

- the dramatic reduction in the use of animals, particularly mice, in cancer research
- the development of a tissue culture veterinary vaccine which replaces the use of animals in the vaccine production process
- the development of in vitro tests for veterinary vaccine quality control testing
- the development of computer teaching models to replace the use of animals in undergraduate teaching programmes.
A formal planning workshop was held in December 1997 to review the 1995 strategic plan. The plan was finalised during 1998. Two additional activities have since been added.

NAEAC’s mission statement was reconfirmed (see inside front cover).

The following specific functions are included in the mission statement:

- to provide advice to the Minister of Agriculture on matters of ethics and related subjects;
- to be conscious of the needs of:
  - animal ethics committees;
  - educational institutions;
  - research institutions;
  - industry.

In support of these functions there is a need to:

- continue to review the relevant legislation to ensure that it meets current needs;
- promote the implementation of refinement, reduction and replacement in animal use;
- review codes of ethical conduct;
- review and promote awareness of the Code of Recommendations and Minimum Standards for the Care and Use of Animals for Scientific Purposes;
- ensure that the committee membership is appropriate;
- produce an annual report for the Minister of Agriculture which summarises the activities of NAEAC and informs him/her of matters requiring attention;
- keep informed of relevant national and international trends;
- facilitate the effective operations of AECs and to encourage the involvement of animal technicians. More specifically, to organise and run regional workshops to educate and encourage external AEC members and technicians on issues relating to the optimum working of AECs;
- continue to monitor information and international discussion regarding xenotransplantation and transgenesis. This includes maintaining an awareness of scientific advances and regulatory attitudes.

NAEAC develops an annual operational plan based on the strategic plan.
Organisations with an Approved Code of Ethical Conduct or with Notified Arrangements to Use an Approved Code

(As at 31 December 2000)

*Use another organisation's animal ethics committee

*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
AUCKLAND 1030

Ambreed New Zealand Ltd
P O Box 176
HAMILTON

Ancare New Zealand Ltd
P O Box 36-240
AUCKLAND

*Ancrum Consultancies
18 Vanderbilt Place
Halswell
CHRISTCHURCH

*Animal Health Centre
P O Box 21
MORRINSVILLE

*Aspiring Animal Services
641 Ballantyne Road
R D 2
WANAKA

Auckland Zoological Park
Private Bag
Grey Lynn
AUCKLAND 1

*Auckland University of Technology
Private Bag 92 006
AUCKLAND 1020

*Baker, Allan J
Centre for Biodiversity & Conservation Biology
Royal Ontario Museum
Toronto
CANADA M5S 2C6

Bay of Plenty Polytechnic
Private Bag TG 12-001
TAURANGA

*Bayer NZ Ltd
P O Box 2825
AUCKLAND

Bomac Laboratories Ltd
P O Box 76-369
MANUKAU CITY

*Calf Collection Services
Mr Paul McGuire
65 Shelly Bay Road
Beachlands
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

Cyamid of NZ Ltd
Private Bag 92-903
Onehunga
AUCKLAND

*Dairying Research Corporation Ltd
Private Bag 3123
HAMILTON

Department of Conservation
P O Box 10-420
WELLINGTON

Diatranz Ltd
P O Box 23-566
Hunters Corner
AUCKLAND

*Duirs NZ Ltd
P O Box 959
HAMILTON

*Elanco Animal Health
9 Gladding Place
MANUKAU CITY

Ethical Agents Ltd
P O Box 97-110
South Auckland Mail Centre
AUCKLAND

Falkirk Scientific Foundation Ltd
Mairoa Road
P O Box P101
AUCKLAND

Genesis Research & Development Corporation Ltd
P O Box 50
AUCKLAND

Green Lane & National Women's Hospitals
Green Lane West
AUCKLAND 3

*Hillcrest High School
P O Box 11-020
HAMILTON

*Horticulture & Food Research Institute of NZ Ltd
Private Bag 3123
HAMILTON

HyClone New Zealand Ltd
P O Box 658
TAURANGA

*Immuno-Chemical Products Ltd
P O Box 1607
AUCKLAND 1

*ImmunoEthical Associates (NZ) Ltd
Crofton Park
4 Marshs Road
CHRISTCHURCH

*Impian Technologies Ltd
P O Box 17263
WELLINGTON

*InterAg (DEC International NZ Ltd)
P O Box 20-055
HAMILTON

*Intervet Ltd
702/9 Hopetoun Street
AUCKLAND

*Karori Reservoir Wildlife Trust Inc
P O Box 9267
WELLINGTON

*Kiwi Ingenuity Ltd
47 Gosford Drive
Hawick
AUCKLAND

Kristin School
P O Box 87
Albany
AUCKLAND

Landcare Research NZ Ltd
P O Box 69
LINCOLN

*Life Technologies Ltd
P O Box 12-502
Penrose
AUCKLAND 1135
Lincoln University  
P O Box 94  
Lincoln University  
CANTERBURY

*Livestock Improvement  
Corporation Ltd  
Private Bag 3016  
HAMILTON

Manawatu Polytechnic  
Private Bag 11-022  
PALMERSTON NORTH

*Medlab Hamilton  
P O Box 52  
HAMILTON

Merial NZ Ltd  
P O Box 76211  
MANUKAU CITY

*Ministry of Agriculture &  
Forestry National Centre for  
Disease Investigation  
P O Box 40-742  
UPPER HUTT

Ministry of Education  
P O Box 1666  
WELLINGTON

(On behalf of all state and  
integrated schools. Non-  
integrated schools and schools  
using non-Ministry code are  
listed separately.)

*National College of Security  
Personnel and Technology  
P O Box 25273  
CHRISTCHURCH

National Institute of Water &  
Atmospheric Research Ltd  
P O Box 11-115  
HAMILTON

*Nelson Hospital  
Private Bag 18  
NELSON

Nelson Polytechnic  
Richmond Campus  
P O Box 19  
NELSON

*New Zealand Aluminium  
Smelters Ltd  
Private Bag 90-110  
INVERCARGILL

New Zealand Forest Research  
Institute  
P O Box 3020  
ROTORUA

*New Zealand Institute for Crop  
& Food Research Ltd  
Private Bag 4704  
CHRISTCHURCH

New Zealand Pastoral  
Agriculture Research Institute  
Ltd (4 AECs)  
Ruakura Agricultural Centre  
Private Bag 3123  
HAMILTON

Novartis NZ Ltd  
Private Bag 19-980  
Avondale  
AUCKLAND

*Nufarm Ltd  
P O Box 22-407  
AUCKLAND 6

Orana Park Wildlife Trust  
P O Box 5130  
Papanui  
CHRISTCHURCH

*Otago Polytechnic  
Private Bag 1910  
DUNEDIN

*P A Biologicals NZ  
Taupara Station  
RD 12  
HAVELock NORTH

*P J McNaughton Family Trust  
R D 1  
HUNTLY

*Parkway College  
P O Box 43-156  
Waikato  
WELLINGTON

*Parnell Laboratories NZ Ltd  
P O Box 58502  
Greenmount  
AUCKLAND

*Pest Solutions  
P O Box 31-191  
CHRISTCHURCH

Pest-Tech  
P O Box 40  
LEESTON

*Plade Holdings Ltd  
Private Bag 3203  
HAMILTON

*Queen Margaret College  
53 Hobson Street  
WELLINGTON 1

*St Mary’s College  
Guilford Terrace  
WELLINGTON

*Samuel Marsden Collegiate  
School  
Marsden Ave  
Private Bag  
WELLINGTON

Schering-Plough Animal Health  
Ltd  
Private Bag 908  
UPPER HUTT

*Scots College  
P O Box 15-064  
WELLINGTON 3

*Slacek, Brigette  
23 Karina Terrace  
PALMERSTON NORTH

South Greta Farms Ltd  
640 Waikuku Road  
RD 3  
PUKEKOHE

South Pacific Sera Ltd  
P O Box 27  
TIMARU

Southland Institute of  
Technology  
Private Bag 90-114  
INVERCARGILL

*Tatua Co-operative Dairy Co  
Ltd  
Main Road R D 4  
Tatuanui  
MORRINSVILLE

The New Zealand King Salmon  
Co Ltd  
P O Box 1180  
NELSON

*Tompkins, Daniel M  
Department of Biological  
Sciences  
University of Stirling  
Stirling FK9 4LA  
UNITED KINGDOM

*Unitec  
Private Bag 92025  
AUCKLAND

University of Auckland  
Private Bag 92-019  
AUCKLAND

University of Canterbury  
Private Bag 4800  
CHRISTCHURCH

University of Otago (3 AECs)  
P O Box 913  
DUNEDIN

University of Waikato  
Private Bag 3105  
HAMILTON

*Venous Supplies 1990 Ltd  
P O Box 26  
TUAKAU

Victoria University of  
Wellington  
P O Box 600  
WELLINGTON

Waikato Polytechnic  
Private Bag 3086  
HAMILTON

*Wakefield Gastroenterology  
Research Trust  
PO Box 7168  
Newtown  
WELLINGTON

*WatPa Enterprises Ltd  
P O Box 29-049  
Greenwoods Corner  
AUCKLAND 3

*Wellington High School  
& Community Institute  
P O Box 4035  
WELLINGTON

*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 2000)

• Agrimm Biologicals Ltd
• Alexander and Associates
• Animal Control Products Ltd
• Animal Health Advisory
• Animalz Napier Ltd
• Aoraki Polytechnic
• Arthur Webster (New Zealand) Pty 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
• Meat Industry Research Institute of New Zealand
• Ministry of Forestry
• Mulvaney, Christopher John
• New Zealand Leather and Shoe Research Association Inc.
• New Zealand Sheepac Ltd
• New Zealand Water Management Ltd
• New Zealand Wildlife Rehabilitation Trust
• Palmerston North Campus, DSIR
## Animal Usage Report: Summary by Species

### APPENDIX 3

#### Reporting Period

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<td>50</td>
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## APPENDIX 4

### Animal Usage Report: Summary by Organisation Type

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## APPENDIX 5

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

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APPENDIX 6

Publications

**Guides to the Animal Welfare Act 1999**
- Guide to the Animal Welfare Act 1999, policy information paper no. 27

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
- 1994 Annual Report
- 1995 Annual Report
- 1996 Annual Report
- 1997 Annual Report
- 1998 Annual Report
- 1999 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