National Animal Ethics Advisory Committee

1994 Annual Report
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The National Animal Ethics Advisory Committee (NAEAC) to the Minister of Agriculture was established in 1984. It reported on its activities between August 1984 and June 1989 in June 1989. During that period a system of protection for animals under manipulation for research, testing, diagnosis and teaching purposes was designed, necessary legislation enacted, codes of ethical conduct drawn up and approved, and institutional animal ethics committees (AECs) established.

Further reports have been issued to cover firstly the period 1 July 1989 to 31 December 1991, and secondly the 1992 and 1993 calendar years.

This report covers the period 1 January 1994 to 31 December 1994.
2. MEMBERSHIP

In February 1992, the Minister of Agriculture decided that members of the Committee would be appointed for a period of three years. In addition, they would be appointed on the basis of their personal background and experience, not as representatives of nominating bodies.

Membership of the Committee in 1994 was as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Appointment</th>
<th>Expiry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr K Robinson</td>
<td>(Chairman)</td>
<td></td>
<td>11.11.96</td>
</tr>
<tr>
<td>Dr A M Richards</td>
<td>(nominated by the Medical Research Council)</td>
<td></td>
<td>31.10.94</td>
</tr>
<tr>
<td>Professor J Marbrook</td>
<td>(nominated by the Royal Society of New Zealand)</td>
<td></td>
<td>31.10.94</td>
</tr>
<tr>
<td>Professor D J Mellor</td>
<td>(nominated by the Royal Society of New Zealand)</td>
<td></td>
<td>31.10.95</td>
</tr>
<tr>
<td>Dr C H B Smith</td>
<td>(nominated by the New Zealand Veterinary Association)</td>
<td></td>
<td>31.10.95</td>
</tr>
<tr>
<td>Dr J C Schofield</td>
<td>(nominated by the New Zealand Veterinary Association)</td>
<td></td>
<td>31.10.95</td>
</tr>
<tr>
<td>Mrs P N Loague</td>
<td>(nominated by the Royal New Zealand Society for the Prevention of Cruelty to Animals)</td>
<td></td>
<td>31.10.95</td>
</tr>
<tr>
<td>Mr N E Wells</td>
<td>(nominated by the Royal New Zealand Society for the Prevention of Cruelty to Animals)</td>
<td></td>
<td>31.10.95</td>
</tr>
<tr>
<td>Mr L M Maxwell</td>
<td>(nominated by the New Zealand School Trustees Association)</td>
<td></td>
<td>31.10.94</td>
</tr>
<tr>
<td>Mrs J G Bennett</td>
<td>(nominated by the New Zealand Local Government Association)</td>
<td></td>
<td>31.10.94</td>
</tr>
<tr>
<td>Mr A C D Bayvel</td>
<td>(nominee of the Ministry of Agriculture and Fisheries)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ms Debbie Taylor is the current Secretary to NAEAC. Mrs Pam Edwards of the MAF Regulatory Authority assists Ms Taylor with the Committee’s work.
3. TERMS OF REFERENCE

Broadly, it is the Committee's function:

- To advise the Minister of Agriculture on the administration of sections 19A and 19B of the Animals Protection Act 1960.

Specifically it is required:

- To advise the Minister on the content of Regulations to be made under section 19A(1) of the Act, in particular on matters to be incorporated in any code of ethical conduct.
- To review and negotiate any desirable modifications to codes of ethical conduct prior to recommending approval under s 19A(5).
- To consider and advise on information that should be collated and available on the use of live animals in research, testing or teaching.
- To undertake such other activities as may be requested by the Minister of Agriculture pertaining to the administration of sections 19A and 19B of the Act.

Generally:

- The Committee should feel free to bring to the attention of the Minister of Agriculture any matters it believes appropriate in the interests of enhancing the welfare and humane treatment of live animals in research, testing or teaching.

Note: These terms of reference have not been changed since NAEAC was first established. The Committee is clearly required to have a close association with the activities of the Animal Welfare Advisory Committee, particularly with respect to legislation concerned with animal welfare and codes of conduct for "laboratory" animals.

Some duality of membership ensures that this takes place. NAEAC has a regular programme of meetings four times per year. Visitors to the meetings assist the Committee with their special expertise when such a need is indicated.

Temporary working groups are formed should an issue require additional deliberation and activity before making a recommendation to the full Committee.
4. CODES OF ETHICAL CONDUCT

Increased public awareness of the requirements of sections 19A and 19B of the Animals Protection Act 1960 has led to more contact being made during 1994 with the NAEAC secretariat regarding the necessity (or otherwise) of establishing an animal ethics committee (AEC).

At the same time, efforts continue to establish contact with other organisations that may be manipulating animals as defined in the terms of the Act.

Assistance is willingly given by the secretariat or committee members to any person or organisation requiring further information.

Revocation of codes by the Minister, on the advice of NAEAC, has occurred where organisations with previous codes no longer exist, where they no longer wish to manipulate animals as defined under the Act, or where they wish to alter their arrangements for compliance with the Act.

Throughout the year, at the instigation of the Chairman, the Committee has deliberated on the need to produce a generic or model code of ethical conduct that would lead to a uniformity in the presentation of codes to the Committee for gazetting by the Minister.

After some extra consideration by a working group, the model code was formally adopted by the full Committee at its August meeting. This format will provide a consistent approach to code content and will ensure that no obligations under the legislation are omitted. In future all persons or organisations will be provided with a copy of the model code to use as the basis of their application.

This system is now in use and proving beneficial and expeditious to both NAEAC and the applicants.

As at 31 December 1994, 71 organisations have approved codes of ethical conduct. Of these, 39 organisations have their own AEC and the remaining 32 organisations are authorised to use an already established AEC.

Appendix I lists the organisations with an approved code as at 31 December 1994 and indicates those which have their own animal ethics committees. Appendix II lists those organisations whose codes of ethical conduct have been revoked (21 codes of ethical conduct as at 31 December 1994).

Revocations were all at the request of the institutions concerned due to administrative changes or where institutions were no longer involved in the manipulation of animals for research, testing or teaching.
5. **SPECIFIC ISSUES ADDRESSED**

5.1 **Communication**

Ensuring dialogue between the national committee and the AECs has been of major concern to members of NAEAC. Whenever possible, opportunities have been taken to enhance, explain and promote this aspect of NAEAC’s work.

Newsletters are to be produced after the February and August meetings each year and distributed widely throughout the AEC network.

AECs continue to receive copies of ANZCCART News and be reminded of any other published material.

It has been recommended by NAEAC that reimbursement for services rendered by members of AECs should be regarded as part of the overall cost of carrying out research, testing and teaching.

Confidentiality with respect to protocol content is of concern to several parties and NAEAC is at present considering a draft list of information that should be included in a proposal where the name of the material being tested is not specified for commercial reasons.

Provision for these matters has been made in the model code.

Several conferences have been attended by members of NAEAC which has resulted in a flow of information and proceedings that benefit all involved in the use of animals in research, testing and teaching.

During 1994, one or more NAEAC members attended the following conferences: New Zealand Veterinary Association Conference, Queenstown, June 1994 (paper entitled Professional and Animal Ethics Issues for Veterinarians conducting on-farm Clinical Trials);

ANZCCART (NZ) Conference, April 1994, Christchurch, entitled Animal Welfare in the Twenty-First Century: Ethical, Educational and Scientific Challenges. (AECs invited);


Adjuvants Workshop (by invitation) held immediately prior to the ANZCCART (Australia) Conference.

MAF’s National Manager (Animal Welfare & Environment) and NAEAC representatives visited various organisations in 1994 and reported back to NAEAC. Of particular interest were the visits to the Canadian Council on Animal Care (CCAC), Ottawa, and the Animal Welfare Information Centre (AWIC) in Washington. Finalisation of a formal arrangement between MAF and AWIC will ensure
access to an extensive data base on information of interest to NAEAC and the AECs.

The New Zealand Veterinary Association (NZVA) surveyed all its veterinary nominees to the AECs in 1993 and the results were reported to NAEAC in 1994.

AECs have been contacted about their need for an 'expertise data base'. The questionnaire highlights the need, in specific areas, for extra advice and knowledge (including alternatives) which should assist the judgement and working of the AEC.

5.2 Use of Animals in Schools

This has continued to be an area in need of resolution. NAEAC members are committed to finding ways to assist teachers to comply with the legislation.

NAEAC was addressed on the use of live vertebrate animals in schools at its May meeting. Difficulties were highlighted and in particular reference made to the new science (animal biology) curriculum.

The Secretary to NAEAC attended the secondary school science teachers conference (SCICON) in August in order to better assess the situation. As a result, draft recommendations that would facilitate revision of the Department of Education’s Code of Ethical Conduct and some practical solutions regarding AEC establishment for schools, are now before NAEAC.

Concern about the video ‘Hidden Crimes’ led to a viewing of the video by the Animals in Schools Education Trust Board. As a result, all school Boards of Trustees were advised that the video should be previewed by teachers before being shown to children and then only with adequate preparation and guidance.

5.3 Alternatives to the Use of Animals

Two members of NAEAC had attended the first ‘World Congress on Alternatives and Animal Use in the Life Sciences’ in Baltimore in November 1993 and a report was circulated to the full Committee. Major developments in the areas of replacement, reduction and refinement (the 3Rs) were presented and the commitment of researchers and scientists to the 3Rs demonstrated. The sophistication of the anti-vivisection lobby groups was made apparent.

The NAEAC working group on alternatives continued to meet and prepared a paper on ‘Challenges Posed by the 3Rs’ for the 1994 ANZCCART Conference.

NAEAC recommended to the AECs that when animals are expected to experience extreme suffering prior to death as an end point, that an earlier more humane end-point be sought if at all possible.

Ethical and scientific questions with respect to the use of mouse bioassays for the detection of marine biotoxins were raised by NAEAC. However the general public and our export markets need to be protected by using testing methodologies which are accurate, reliable and internationally acceptable. Currently there are no viable alternatives to the use of mouse assays for the detection of marine
biotoxins. Reduction in the numbers of mice used in the assays and encourage-
ment to continue research for an alternative assay were proposed by NAEAC
following a visit from the Marine Biotoxin Management Unit.

The fact that a particular pharmaceutical company had developed a veterinary
vaccine using a tissue culture production method instead of production in live
animals was seen as a positive move towards using alternatives.

5.4 Code of Recommendations and Minimum Standards for the Care
and Use of Animals for Scientific Purposes

A sub-committee of NAEAC progressed this issue through 1994 and finally a
policy decision was taken by NAEAC to adopt the Code (prepared along the
format of its Australian counterpart) as one of the existing series of codes of
welfare already published by the Animal Welfare Advisory Committee (AWAC).

The Code of Practice will be renamed the Code of Recommendations and Minimum
Standards for the Care and Use of Animals for Scientific Purposes. It will be produced
under the auspices of AWAC.

Once completed this Code will serve as a comprehensive document for the guid-
ance of all AECs and is intended to be used in conjunction with the model code.

5.5 Reporting of Statistics

Under the present law, the Director-General of Agriculture and Fisheries must be
provided annually with details of all animal use as contained in the Animals Pro-
tection (Codes of Ethical Conduct) Regulations 1987.

There is significant public interest in the extent to which animals are manipulated
and the degree of invasiveness.

Other countries such as Canada and the USA have developed a system for rating
the levels of invasiveness in animals used for experimental purposes. These statistics
are reported and provide valuable information on the extent to which animals are
being manipulated.

NAEAC has reviewed the data that have been collected annually and concluded
that three additional categories will be required to be reported on by AECs effec-
tive for all new protocols approved from 1 January 1995 –

- the status of the animals to be used;
- the main reason for manipulation; and
- the level of invasiveness.

In addition, NAEAC has recommended that future reporting will only contain
statistics on completed research, testing, etc. This will reduce the amount of
duplicate reporting on animal usage where the research, etc has had a duration
longer than 1 year.

As a result, this year’s figures show a noticeable decrease in the numbers of sheep
that were used in the reporting period. The large increase in the number of mice
used for research, testing and teaching can largely be attributed to the number of
biosassay tests that were performed to ascertain the presence of biotoxins in New Zealand shellfish.

NAEAC has developed an appropriate form for the collection of this information and to further assist, a database has been developed by MAF specifically for this purpose. This software programme and documentation will be provided to AECs free of charge.

Restructuring in the science sector has resulted in the formation of Crown Research Institutes (CRIs). The CRIs have largely been derived from the research divisions that previously were part of the Ministry of Agriculture and Fisheries (MAF) and the Department of Scientific and Industrial Research (DSIR).

Animal usage statistics for the CRIs appear in this report for the first time.

Appendices 3 and 4 summarise the animal usage statistics collected from all organisations which have an approved Code of Ethical Conduct.
5.6 Animal Welfare Research

The Foundation for Research, Science and Technology (FRST) has identified animal welfare as both a key research goal and a high priority area for research emphasis in the Public Good Science Fund strategy for the next five years.

The Animal Behaviour and Welfare Research Centre at Ruakura, Hamilton, is one of a number of establishments in New Zealand able to take advantage of this funding source.

The appointment in October 1994 of Professor Neville Gregory to the first AGMARDT Chair in Animal Welfare Science at the Faculty of Veterinary Science at Massey University was welcomed by NAEAC as one of the supporters of the initiative.

5.7 Australian and New Zealand Council for the Care of Animals in Research and Teaching (ANZCCART)

NAEAC re-affirmed a policy commitment to maintain strong links with ANZCCART.

ANZCCART (NZ) held a conference entitled ‘Animal Welfare in the Twenty-first Century – Ethical, Educational and Scientific Challenges’ in Christchurch in April 1994. Secondary school students were present and graduate students made presentations. The conference was well attended and the proceedings are available.

ANZCCART (Australia) held a conference with a similar theme in Melbourne and this was preceded by a workshop on adjuvants.

Proceedings from the ANZCCART (Australia) Conferences held in 1992 and 1993 became available. These are entitled Effective Animal Experimentation Ethics Committees and Improving the Well-being of Animals in the Research Environment respectively.

In addition, a monograph prepared for ANZCCART by members of the Queensland Branch of the Australian Society for Laboratory Animal Science became available. It is entitled Euthanasia of Animals Used for Scientific Purposes and is proving to be extremely useful as a reference for members of AECs.

A monograph on laboratory animal housing has been commissioned by ANZCCART (Australia). ANZCCART has compiled a collection of reviews of the book Animal Research Takes Lives.

A revised edition of the brochure Animal Research Saves Lives has been published for use in both Australia and New Zealand. This is aimed at promoting public awareness of the benefits of the use of animals in research and teaching.

While NAEAC has continued to review the consistency of approach and effectiveness of the AECs, ANZCCART has developed an interest in an AEC assessment programme based on the Canadian (CCAC) model. The concept of an assessment system for AECs will be reviewed in 1995 by ANZCCART.
The first issue of the Beta Series produced by the Royal Society of New Zealand addressed the topic 'Animals in Society — How Simple are the Issues?'. This series is designed to give a general and balanced picture of the competing viewpoints associated with issues raised by scientific research, thus meeting one of the objectives of ANZCCART.

5.8 Strategic Planning

5.9 Guide for Lay Members of AECs
A working group of NAEAC was formed to progress and finalise this educational information package for lay members of AECs. The need for suitably written material is considered essential to enable lay members to contribute effectively to the deliberations of the AEC and so meet the public's expectation of them. A glossary of terms commonly used in protocols and a list of sources of further help will be included.

It is anticipated that this guide will be available early in 1995.

5.10 Clinical Trials by Veterinarians
It was proposed that this issue be reviewed by a joint NAEAC/NZVA sub-committee from a legal, ethical and practical perspective. Determination of the purpose for which the animals are manipulated has been used as the basis of similar discussion in the United Kingdom.

A recommendation to legislate for an amendment to the Animals Protection (Codes of Ethical Conduct) Regulations 1987 may be forthcoming following further consideration and discussion.

Further dialogue with the scientific assessment committee of the Animal Remedies Board (ACUSAM) was undertaken by members of NAEAC as approval of licences for animal remedies includes the conducting of clinical field trials.
6. CONCLUSION

NAEAC continues to consider and advise on information that should be collated and available on the use of live animals in research, testing and teaching. In addition, it pursues any indication that an alternative to the use of live animals could be contemplated or considered.

AECs are the cornerstone of the system which controls the use of animals in research and teaching in New Zealand. The Codes of Ethical Conduct set out the principles and rules for such use. Individual and institutional responsibility is fostered by the codes.

Public confidence in such a system will continue so long as compliance with the code is demonstrable.
APPENDIX 1

Organisations with an Approved Code of Ethical Conduct (as at 31 December 1994)

*Use other organisation's animal ethics committee.

*Advanced Animal Technology
Private Bag 3123
HAMILTON

Alexander & Associates
Pinfold Road
RD1 Aokautere
PALMERSTON NORTH

Ambreed NZ Ltd
P O Box 176
HAMILTON

Ancare New Zealand Ltd
P O Box 36-240
AUCKLAND 9

Aoraki Polytechnic
Private Bag
TIMARU

*Arthur Webster Pty Ltd
C/- Dr. Richard J Booker
6 Sandringham Road
Enderley
HAMILTON

*Aspiring Animal Services
Ballantyne Road
RD 2
WANAKA

Auckland City Zoological Park
Motions Road
Western Springs
AUCKLAND 1

*Auckland Institute of Technology
Private Bag
AUCKLAND 1

*Autogenous Vaccines
62 Raymond Street
HAMILTON

Bay of Plenty Polytechnic
Private Bag TG 12-001
TAURANGA

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

Christchurch Polytechnic
P O Box 22-095
CHRISTCHURCH

Ciba-Geigy NZ Ltd
Private Bag 19-999
Avondale
AUCKLAND

Cook Laboratories Ltd
C/- Alpha Biologicals
P O Box 38-213
Howick
AUCKLAND

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

Cyanamid 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

*Elanco Animal Health
9 Gladding Place
Manakau City
AUCKLAND

*Genesis Research
P O Box 50
AUCKLAND

Green Lane National
Women's Hospital
Green Lane West
AUCKLAND 3

*Health Waikato
P O Box 485
HAMILTON

*Hillcrest High School
P O Box 11-020
HAMILTON

Immuno-Chemical Products
Ltd
P O Box 1607
AUCKLAND 1

Kristin School
P O Box 87
Albany
AUCKLAND

Landcare Research NZ Ltd
P O Box 31-011
CHRISTCHURCH

*Life Technologies Ltd
P O Box 12-602
Penrose
AUCKLAND 6

Lincoln University
P O Box 84
CANTERBURY

*Livestock Improvement
Corporation Ltd
Private Bag 3016
HAMILTON

*Lowe Walker Hawera Ltd
P O Box 449
HAWERA

*MAF Quality Management
Ministry of Agriculture &
Fisheries
P O Box 2526
WELLINGTON
Mallinkrodt Veterinary Ltd
Private Bag
UPPER HUTT

Manawatu Polytechnic
Private Bag
PALMERTON NORTH

Massey University
Private Bag 11-222
PALMERTON NORTH

*Meat Industry Research Institute of NZ
P O Box 617
HAMILTON

*Medlab Hamilton
P O Box 52
HAMILTON

Ministry of Education
P O Box 1666
WELLINGTON
(On behalf of all state & integrated schools: 5 Committees set-up. Non-integrated schools or schools using non-departmental code are listed separately.)

MSD Agvet
P O Box 23-244
Papatoetoe
AUCKLAND

Nelson-Marlborough Health Services
P O Box 132
NELSON

NZ Communicable Disease Centre
P O Box 50-348
PORIRUA

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

*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

*Parkway College
Parkway
Wainuiomata
WELLINGTON

*Paxarms
37 Kowhai Street
TIMARU

*Queen Margaret College
53 Hobson Street
WELLINGTON 1

*Rhône-Poulenc NZ Ltd
P O Box 35-060
Naenae
LOWER HUTT

Roche Products (NZ) Ltd
P O Box 12-492
Penrose
AUCKLAND

*Salmond Smith Biolab Ltd
Private Bag
Northcote
AUCKLAND 9

*Scots College
P O Box 15-064
WELLINGTON 3

Selborne Biological Services NZ Ltd
P O Box 658
TAURANGA

*Mrs Catherine H Smith
56 Orchard Avenue
HAMILTON

*South Auckland Crown Health Enterprise
Private Bag 93-311
Otahuhu
AUCKLAND 6

South Greta Farms Ltd
RD3
PUKEKOHE

South Pacific Sera Ltd
P O Box 27
TIMARU

Sovereign Feeds Ltd
C/- Chief Executive Officer
P O Box 1298
HAMILTON

*St Mary's College
Guildford Terrace
WELLINGTON

*Unitec
Private Bag
Mt Albert
AUCKLAND

University of Auckland
Private Bag 92-019
AUCKLAND

University of Canterbury
Private Bag
CHRISTCHURCH

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

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

*WatPa Enterprises Ltd
23 Coronation Road
Epsom
AUCKLAND 3

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

Wellington Polytechnic
P O Box 756
WELLINGTON

Young's Animal Health (NZ) Ltd
P O Box 40-442
UPPER HUTT
APPENDIX 2

Codes of Ethical Conduct Revoked (as at 31 December 1994)

- Travenol Laboratories (NZ) Ltd (later known as Baxter Healthcare Ltd)
- Palmerston North Hospital Board (later known as Manawatu Wanganui Area Health Board)
- Bioscience Corporation Ltd
- Wrightson Breeding Services Ltd
- Arthur Webster (NZ) Pty Ltd
- Waikato Area Health Board (formerly Waikato Hospital Board)
- New Zealand Sheepac Ltd
- New Zealand Leather and Shoe Research Association Inc
- Palmerston North Campus, DSIR
- SmithKline Beecham (NZ) Ltd (formerly SmithKline & French (NZ) Ltd)
- Ministry of Forestry
- Shell Chemicals NZ Ltd
- Pfizer Laboratories Ltd
- Central Institute of Technology
- Biotechnology Division, DSIR
- Grasslands Division, DSIR
- Coopers Animal Health New Zealand Ltd
- Ecology Division, DSIR
- Agrimm Biologicals
- Longburn Adventist College
- Taubara Furs Partnership
### APPENDIX 3

#### Animal Usage Report: Summary by Species

<table>
<thead>
<tr>
<th>Species</th>
<th>No.</th>
<th>% dead or used</th>
<th>No.</th>
<th>% dead or used</th>
<th>No.</th>
<th>% dead or used</th>
<th>1.9.89 to 31.12.89</th>
<th>1.1.90 to 1.12.90</th>
<th>1.1.91 to 1.12.91</th>
<th>1.1.92 to 1.12.92</th>
<th>1.1.93 to 1.12.93</th>
<th>1.1.94 to 31.12.94</th>
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<tr>
<td>Amphibians</td>
<td>2,921</td>
<td>88</td>
<td>6,387</td>
<td>50</td>
<td>9,488</td>
<td>59</td>
<td>12,546</td>
<td>7,489</td>
<td>10,792</td>
<td>10,792</td>
<td>10,792</td>
<td>10,792</td>
</tr>
<tr>
<td>Birds</td>
<td>2,531</td>
<td>90</td>
<td>6,387</td>
<td>39</td>
<td>9,331</td>
<td>27</td>
<td>12,546</td>
<td>7,489</td>
<td>10,792</td>
<td>10,792</td>
<td>10,792</td>
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<tr>
<td>Fish and fish</td>
<td>2,531</td>
<td>90</td>
<td>6,387</td>
<td>39</td>
<td>9,331</td>
<td>27</td>
<td>12,546</td>
<td>7,489</td>
<td>10,792</td>
<td>10,792</td>
<td>10,792</td>
<td>10,792</td>
</tr>
<tr>
<td>Mammals</td>
<td>2,531</td>
<td>90</td>
<td>6,387</td>
<td>39</td>
<td>9,331</td>
<td>27</td>
<td>12,546</td>
<td>7,489</td>
<td>10,792</td>
<td>10,792</td>
<td>10,792</td>
<td>10,792</td>
</tr>
<tr>
<td>Reptiles</td>
<td>2,531</td>
<td>90</td>
<td>6,387</td>
<td>39</td>
<td>9,331</td>
<td>27</td>
<td>12,546</td>
<td>7,489</td>
<td>10,792</td>
<td>10,792</td>
<td>10,792</td>
<td>10,792</td>
</tr>
<tr>
<td>Total</td>
<td>2,531</td>
<td>90</td>
<td>6,387</td>
<td>39</td>
<td>9,331</td>
<td>27</td>
<td>12,546</td>
<td>7,489</td>
<td>10,792</td>
<td>10,792</td>
<td>10,792</td>
<td>10,792</td>
</tr>
</tbody>
</table>

**TOTAL**  277,450

16
Notes:
1. The reporting period was 16 months in 1987-88, and 12 months in subsequent years.
2. Miscellaneous species include buffalo, camelids, bats, hedgehogs, oryx and wallabies.
3. No information has been collected that will allow analysis of the type of manipulative procedure carried out. For example, administration of a drench to a group of sheep in a worm drenching trial cannot be differentiated from experimental cardiac surgery on one or more animals of the same or a different species.
4. The % dead or destroyed refers to those animals used (manipulated) that either died or were humanely destroyed during or at the end of the reporting period concerned. The remainder were alive at the conclusion of the “manipulation” and were retained for further used by either the reporting institution or another institution, were returned to their owners, given away or sold or were released to the wild.
5. The 1994 animal usage statistics pertain to completed research in the reporting period. Future animal usage will only be reported in the year that the research, testing, etc was completed or every three years, whichever comes first.
# APPENDIX 4

Animal Usage Report: Summary by Organisation Type

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Notes:

1. Prior to 1994, Crown Research Institutes were reported as MAF and DSIR.

2. “Commercial” embraces those organisations that manipulate animals for testing chemical and biological products, or for the production of such substances for commercial use.

3. “Other” includes such organisations as Area Health Boards, schools/colleges, the New Zealand Communicable Disease Centre, etc.

4. “Other domesticated animals” include alpaca, buffalo, cats, deer, dogs, donkeys, horses and pigs.

5. “All other species” include animals such as axolotls, bats, fitches, fur seals, lizards, possums, toads, wallabies, etc.