

National Animal Ethics Advisory Committee

Mission Statement

“To provide independent, high quality advice and recommendations to the Minister of Agriculture, the Director-General of Agriculture, Animal Ethics Committees and others on all matters relating to the use of animals in research, testing and teaching.”

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C/o Ministry of Agriculture and Forestry
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The National Animal Ethics Advisory Committee (NAEAC) is pleased to present its seventh annual report since the Animal Welfare Act 1999 came into force.

The growth of agricultural production and trade and the continuing improvement in individual and public health are crucial to the welfare of New Zealand. The conservation of indigenous species is also an important objective of public policy. In all these fields the use of animals for research, testing and teaching (RTT) makes significant contributions. In Part 6 of the Animal Welfare Act, Parliament has laid down the statutory conditions under which these activities may take place in New Zealand. NAEAC has a central role in the regulatory system imposing a duty of care on those responsible for the use of animals in RTT.

NAEAC's principal roles are to advise the Minister and the Director-General of the Ministry of Agriculture and Forestry (MAF) on ethical and animal welfare issues arising from RTT and to provide information and advice to Animal Ethics Committees (AECs). NAEAC's membership (appointed by the Minister of Agriculture) comprises ten members drawn from the research and commercial communities with lay representatives from animal welfare organisations, education and local government, plus a MAF nominee.

An important part of NAEAC's work is to consider codes of ethical conduct submitted by organisations or individuals wishing to manipulate animals for the purposes of RTT. Such codes, approved by the Director-General of MAF on NAEAC's recommendation, are mandatory and are used by 111 organisations. The last of the codes of conduct that predated the 1999 Act expired in 2004 and new codes are now in place. From 2007 the first of the codes approved under the Animal Welfare Act will come up for five-year renewal and this activity will be a high priority in NAEAC's work programme for 2007.

All code holders must, by law, establish and maintain AECs. Organisations and individuals wishing to engage in RTT may, however, use another organisation's code and AEC. As at 31 December 2006 there were 34 AECs.

The AECs are the "front line" of the rigorous New Zealand regulatory system. No research, testing or teaching project may be carried out on any live animal without the approval of an AEC. In considering applications AECs must have regard to the criteria laid down in the Animal Welfare Act. AECs are also responsible for monitoring compliance with conditions of project approvals and the state of animal management practices and facilities. AECs must have at least four members. Three of these must be from outside the organisation and include a veterinarian nominated by the New Zealand Veterinary Association, a nominee from an approved organisation (e.g. the Royal New Zealand SPCA) and a person nominated by a local authority.

A further statutory requirement aimed at providing assurance about the role played by AECs is the undertaking of regular reviews of their activities by accredited independent reviewers. NAEAC and the Ministry attach considerable importance to these reviews.

The provision of information and advice to AECs is high among NAEAC's priorities. During 2006 the national workshop for AEC members held in November and attended

by nearly 80 people was a highlight (see section 6.1.2). We are grateful to the Minister (Hon Jim Anderton) for opening the workshop. From NAEAC's viewpoint, the workshop was successful in achieving its principal purposes, i.e. to provide a venue where AEC members could share their own experience, and an occasion where they could widen and deepen their knowledge. The workshop also enabled NAEAC to identify issues to which attention should be directed in future. Feedback from participants indicated that the workshop was regarded as valuable by those who attended.

Much of the workshop discussion focused on the application of the Three Rs (replacement, reduction and refinement) – the approach to RTT that is at the heart of Part 6 of the Animal Welfare Act. The NAEAC Three Rs Award (see section 7.2) underlines the importance we attach to the comprehensive implementation of the Three Rs in New Zealand. We will continue to encourage and support initiatives designed to achieve this objective.

Section 8 reports on the returns of statistics of animal usage as required by the Animal Welfare (Records and Statistics) Regulations 1999. Overall, 318,489 animals were manipulated during 2006. After several below-average years, this represented an increase of 21 per cent on the 2005 figure but was below the totals recorded in 2000 and 2003. Such year-on-year fluctuations can in part be attributed to a three-year reporting cycle for long-term projects.

A noteworthy feature of the 2006 statistics was that 87% (277,048 animals) of the total animals used were classified as experiencing “no” or “little” suffering. Just over 5% (16,213) – nearly all rodents – were in the “severe” or “very severe” suffering grades. Almost all animals (rodents) graded as experiencing “severe” or “very severe” suffering were used for testing the safety and efficacy of animal health products to meet regulatory requirements. Other uses were for medical research studying arthritis and wound healing and for public health testing for algal bloom-induced marine biotoxins.

The principal purposes of manipulation in 2006 were: animal husbandry (24.9%), largely investigating lameness in the broiler industry; basic biological research (23.7%) involving large studies of traits in stud breeding stock; and veterinary research (18.1%). Other uses include medical research (7.2%) and teaching (7.1%), largely attributable to the teaching of artificial insemination in cattle.

In all projects judged to involve severe or very severe suffering, ameliorative action is taken, including a high level of veterinary care, where practical, and pain relief.

2006 was my first full year as chair of NAEAC. I have been ably supported by the deputy chairperson, Dr Kathleen Parton of the Institute of Veterinary, Animal and Biomedical Sciences, Massey University, and other members of the committee. I thank all NAEAC members for their contribution to our work and their commitment to the objectives of the Animal Welfare Act. Mrs Barbara Benson completed her term on the committee and we thank her for her sterling contribution particularly in representing the education sector. We welcome Mrs Allison Dodds as her replacement. We were sorry to lose Dr Phil Lyver from our membership during the year and acknowledge his valuable input to our discussions. I record too our appreciation of the continuing support NAEAC members receive from the staff of the Ministry of Agriculture and Forestry.

John Martin
Chairperson

2.1

Legal Status of the Committee

The Animal Welfare Act 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 NAEAC's role within that framework.



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

- advising the Minister on ethical and animal welfare issues arising from RTT
- 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 and policies for codes of ethical conduct
- providing information and advice to AECs
- making recommendations on the appointment of accredited reviewers
- considering the reports of independent reviews of code holders and AECs
- 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. The committee has a maximum of ten 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.

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 RTT;
- the need for balance between those involved in RTT 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 2006.

Members	Expiry of Appointment
Mr John R Martin MA (Hons), Consultant (Independent Chairperson)	31.10.09
Mr A C David Bayvel BVMS, DTVM, MPP, MACVSc, MRCVS, Director Animal Welfare, MAF Biosecurity New Zealand (MAF nominee – ex officio)	N/A
Mrs Barbara J Benson BSc, Dip Tchg, Director of Secondary Education and Senior Lecturer in Science, Dunedin College of Education (nominated by the Ministry of Education)	31.10.06
Ms Linda A Carsons B Soc Sci (Hons), Senior Policy Adviser Animal Welfare, MAF Biosecurity New Zealand (MAF nominee – ex officio)	31.10.08
Ms Allison L Dodds MSc (Hons), Dip Tchg, Head of Science and Technology Faculty, Queens High School (nominated by the Ministry of Education)	31.10.09
Dr Ian J LeGrice BE, Dip TP, BHB, MBChB, PhD, Senior Lecturer, Department of Physiology and Bioengineering Institute, University of Auckland (nominated by the Royal Society of New Zealand)	31.10.09
Dr Philip O Lyver BSc, PhD, Scientist (nominated by Landcare Research New Zealand Ltd)	31.10.07
Dr Simon C Malpas BSc (Hons), PhD, Associate Professor, Department of Physiology and Bioengineering Institute, University of Auckland (nominated by the Health Research Council of New Zealand)	31.10.07
Dr Roger M Marchant BSc, BVSc, Veterinary Adviser, Schering-Plough Animal Health Ltd (nominated by AGCARM)	31.10.07

Members	Expiry of Appointment
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)	31.10.07
Mr David J M Peart JP, Regional Councillor, Environment Waikato (nominated by Local Government New Zealand)	31.10.08
Mrs Jenifer M Prattley National Vice-President, Royal New Zealand Society for the Prevention of Cruelty to Animals (nominated by the Royal New Zealand SPCA)	31.10.08

Ms Linda Carsons was appointed to replace Mr David Bayvel, who stepped down from the committee during the year. The committee wishes to acknowledge the pivotal contribution made by Mr Bayvel as the ex officio member of NAEAC since its inception in 1989. His encyclopaedic knowledge of the regulatory system and issues dealing with the use of animals in RTT both nationally and internationally has been, and will continue to be, of great assistance to the committee.

During 2006, Mrs Barbara Benson retired from the committee having served two terms. The committee wishes to record its appreciation of the valuable contribution made by Mrs Benson, particularly in respect to her commitment in establishing an AEC within the education sector. Ms Allison Dodds was appointed to fill this vacancy. Dr Philip Lyver resigned from the committee late in the year due to unavoidable work commitments. The process for appointing replacement members had not been completed before the end of the year. Dr Ian LeGrice was reappointed for a further term.

4.3 Secretariat

The Animal Welfare Group within MAF Biosecurity New Zealand continued to provide high quality support to NAEAC during the year. Joanna Tuckwell, the committee's secretary, Linda Carsons, Dr Kate Littin, Kirsty Grant and Margaret Handscomb all made valuable contributions to the work of the committee. The committee would also like to acknowledge the substantial contribution made by Pam Edwards, who resigned from the Animal Welfare Group during the year.

4.4 Deputy Chairperson

The Animal Welfare Act requires the committee to elect a deputy chairperson at the first meeting of each year. Dr Kathleen Parton was elected to fulfil this role.

4.5 Fees

Government policy requires disclosure of fees paid to members of statutory boards and committees. The daily fee paid to committee members during 2006 was \$375 for members and \$475 for the chairperson.

Members are paid the fee for attending meetings, with an allowance of up to one 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 2006.

Member	Fees paid during 2006 (gross)
J Martin	\$3,650.00
D Bayvel ¹	
B Benson ²	\$2,437.50
L Carsons ¹	
A Dodds	\$937.50
I LeGrice	\$3,000.00
P Lyver ²	\$2,812.50
S Malpas	\$2,062.50
R Marchant ³	
K Parton ²	\$2,273.44
D Peart	\$3,656.25
J Prattley	\$3,000.00

¹ Mr Bayvel and Ms Carsons are employed by MAF and thus do not receive meeting fees.

² Fees are paid direct to the member's employer to recompense them for time lost from the member's primary employment.

³ Schering-Plough Animal Health Ltd employees forgo acceptance of meeting fees in accordance with company policy to act as a good corporate citizen and materially assist public good operations where practicable.

4.6 Operations

4.6.1 Meetings

NAEAC met four times in 2006 for general meetings. Meetings for the specific purpose of reviewing applications for codes of ethical conduct were not required this year.

Temporary working groups were formed to deal with specific issues where necessary. Visitors to the meetings assisted the committee with their special expertise or kept the committee informed of significant current developments.

4.6.2 Strategic and operational plans

The committee reviewed its strategic plan in 1995, 1998, 2001 and 2004. It will do so again in 2007. Operational plans are developed each year based on the strategic plan. Progress against the 2006 operational plan was reviewed at each quarterly meeting.

4.6.3 Performance review

The committee regularly reviews its performance. The system provides members with an opportunity for considered reflection and debate on the way the committee operates. In reviewing its performance in 2006, the committee again paid tribute to the excellent support it receives from all the Animal Welfare Group staff of MAF Biosecurity New Zealand. NAEAC members also reaffirmed their commitment to raising public awareness of the regulatory system encompassing the use of animals in RTT.

4.6.4 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 3.

5 Codes of Ethical Conduct

All organisations or individuals that manipulate live animals for the purposes of RTT are required to do so in accordance with a code of ethical conduct recommended by NAEAC and approved by the Director-General of MAF.

5.1 Requirements of the Animal Welfare Act

Under the Animal Welfare Act, codes of ethical conduct must be approved by the Director-General of MAF, as must 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. Notice of the Director-General's decision is published in the *Gazette*.

For those wanting to use another organisation's code and AEC, the statute 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, code holders may make minor amendments. 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".

5.2 Activity During 2006

The table below outlines the applications processed and notifications made during 2005 and 2006.

	2006	2005
Approval of new code	1	2
Notification of arrangement to use existing code	27	8
Approval of amendments to code	2	2
Notification of minor amendments to code	5	3
Termination of notified arrangement to use existing code	11	4
Code expired and not renewed	2	3
Arrangement to use existing code lapsed	8	2

The codes of ethical conduct in force prior to the Animal Welfare Act were systematically brought into line with, and approved under, the Act between 2002 and 2004. If code holders wish to apply for a new code, those code holders with codes approved in 2002 are due to have a mandatory independent review undertaken in 2007 (see section 6.2 for more detail).

During 2006, there were 27 organisations which made arrangements to utilise existing codes and a further 11 organisations which terminated their arrangements. Most of these arrangements have been initiated by new organisations, some of which may be temporary, lasting for only one or two years to cover one or a small series of research projects for which they need AEC approval. Others are due to business sales, mergers and/or takeovers (see section 93 of the Animal Welfare Act).

Details of all codes approved or revoked and arrangements notified or terminated continue to be published regularly in *NAEAC News* and *Biosecurity*.

5.3 Codes on MAF Website

NAEAC would like to support MAF in offering code holders the opportunity to publish a link to their codes of ethical conduct on the MAF website. It would like to extend this initiative to also include the addition of AEC application forms on the site.

5.4 Approvals in Force

The following table gives details of the number of approvals in force as at 31 December 2005 and 2006.

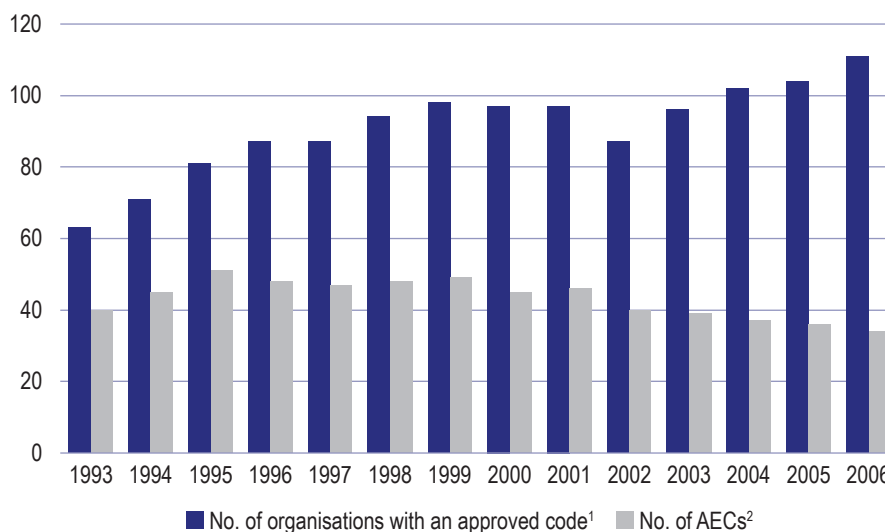
Number of:	2006	2005
organisations using an approved code	111	104
approvals in force ¹	112	105
organisations with a code	30	31
AECs established ²	34	36
organisations using another organisation's AEC	81	73

¹ One organisation has two approvals in force. This organisation uses a different AEC, and therefore a different organisation's approved code, for different types of projects.

² Two organisations have more than one AEC to facilitate work carried out at more than one campus / location.

The number of organisations / individuals using an approved code (their own or another organisation's) has increased for the fifth consecutive year, to 111. In contrast, the number of AECs established to deal with projects from all those organisations continues to follow the long-term trend and has fallen to a new low of 34. This is shown more graphically below.

Number of codes and AECs



¹ Some organisations may have more than one approval.

² Excludes AECs set up from time to time under the Department of Education code (1987–2002).

Appendix 1 lists the organisations with an approved code as at 31 December 2006 and indicates those that use another organisation's AEC. Appendix 2 lists those organisations whose codes of ethical conduct have expired or have been revoked, most commonly because their activities no longer necessitate a code or after company / organisational mergers where both parties had a code.

It is important to note that the Animal Welfare Act contains a provision (section 93) 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 effect of revoking the code of ethical conduct approval unless the change is effected with the Director-General's consent.

5.5 Approvals Not Made by AECs

5.5.1 Non-human hominids

The Animal Welfare Act precludes the use of non-human hominids¹ for the purposes of RTT unless it is carried out with the approval of the Director-General of MAF 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 its best interests or in the interests of its species and that the benefits to be derived outweigh any likely harm to the individual animal.

In March 2003, the Director-General approved the first non-human hominid research project pursuant to section 85 of the Animal Welfare Act. A condition of the approval was that the project being undertaken by the doctoral student also had to be approved by the applicant's university's AEC. This approval was subsequently granted. The purpose of the research being undertaken at Wellington Zoo is to obtain information on what a group of captive chimpanzees regard as preferences for enrichment and to use this information to improve their behavioural and physical well-being. The research was reconsidered by the AEC in 2006, as the original approval expired during the year and the fieldwork was completed late in the year. A MAF monitoring report is expected early in 2007.

5.5.2 Research or testing in the national interest

The Minister of Agriculture may authorise research or testing without the approval of an AEC 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 matters that affect or are likely to affect 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.

The Minister approved no research or testing in the national interest during 2006.

¹ "Non-human hominid" means any non-human member of the family Hominidae, being a gorilla, chimpanzee, bonobo or orangutan (section 2(1) of the Animal Welfare Act).

6 AECs

6.1 Communication with AECs

6.1.1 Visits

NAEAC generally schedules some of its meetings to coincide with visits to code holding institutions. In 2006, it visited code holders in Tauranga in conjunction with the June meeting, and the November meeting coincided with the one-day NAEAC workshop for AECs in Wellington (see section 6.1.2). During the year, the chairperson and secretary visited animal facilities at the University of Otago's Wellington School of Medicine and Health Sciences and facilities at Massey University. NAEAC members value the opportunity to meet with those involved in RTT and those serving on, or administering, AECs.

6.1.2 National workshop for AEC members

NAEAC held a one-day national workshop in November for AECs. In opening the workshop, the Minister of Agriculture, Hon Jim Anderton, emphasised the Government's strong commitment to science and recognised the important place of appropriate concern for, and management of, animal welfare issues.

The workshops are seen not only as beneficial to AEC members, but also for NAEAC, MAF and AECs to identify future topics and issues for consideration. Of the 77 people who attended the workshop, 60 were AEC members who represented 28 of the 34 AECs. NAEAC is grateful to the people from other organisations who led the discussions.

Forum discussions were held on:

- humane end points
- severity grading and manipulation
- when is a manipulation not a manipulation?
- ethics, openness and transparency
- the Three Rs – where to from here?
- challenges for AECs.

Attendees were asked to provide feedback on the workshop. All respondents thought the workshop relevant, would like NAEAC to continue providing workshops and provided suggestions for future workshop topics. NAEAC is committed to continue to arrange workshops for AEC members from time to time.

6.1.3 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 (e.g. researchers, teachers, animal care staff, senior executives) do, in fact, have ready access to it.

One issue of *NAEAC News* was published in 2006 (No. 24, August). For a complete list, see appendix 3.

Another mechanism for communication with AECs is the MAF Biosecurity New Zealand 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 that are likely to be of interest and relevance to AECs.

6.1.4 Conferences and workshops

Each year various NAEAC members, or members of the secretariat, attend conferences or workshops of relevance to the committee's work. Information and proceedings from such conferences are circulated or their availability publicised for the benefit of NAEAC and others involved in the use of animals in RTT.

Conferences attended during 2006 were as follows:

- Royal New Zealand Society for the Prevention of Cruelty to Animals 73rd Annual Conference, Christchurch, May
- Dunedin College of Education Workshop "Regulatory requirements for use of animals in schools for teachers", Dunedin, May
- Office International des Epizooties (OIE) General Session, Paris, France, May
- Trans-Tasman Animal Welfare Working Group, Gold Coast, Australia, July
- OIE Permanent Animal Welfare Working Group, Paris, France, July
- National Animal Welfare Advisory Committee Round-table Discussion on "The Future Use of Relief for Painful Conditions in Production Animals", Wellington, August
- Australian and New Zealand Council for the Care of Animals in Research and Teaching Conference "Responsibilities – The Fourth R", Canberra, Australia, September
- Bioethics Council dialogue session "Talking Embryos", Wellington, September
- OIE / International Council for Laboratory Animal Science (ICLAS) / International Association of Laboratory Animal Medicine (IACLAM) Special Meeting, Salt Lake City, USA, October
- US Animal Health Association, Minneapolis, USA, October
- NAEAC Workshop for AECs, Wellington, November.

6.1.5 Reference material for code holders and AECs

NAEAC collated published material and a list of relevant websites into a resource package for new AEC members in 2004. It contains information relating to the regulatory framework, the role of an AEC member and guides relating to best practice for caring for animals involved in RTT. This material continues to be an important reference for newly appointed AEC members, as well as a source of information when new and complex issues arise.

A Guide to the Preparation of Codes of Ethical Conduct was published in September 2006, a revised edition of an earlier NAEAC publication. Another revised publication, *A Guide for Lay Members of Animal Ethics Committees*, is due out early in 2007.

6.2 Independent Reviews of AECs

The Animal Welfare Act requires code holders and their AECs to undergo periodic independent reviews. 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.

Reviews may only be carried out by people who have been accredited by the Director-General of MAF to carry out such reviews. The pool of accredited reviewers stands at seven (see appendix 4).

During 2006, one review was conducted for a new code holder (two-year review) and two follow-up reviews were undertaken.

Both NAEAC and the Director-General of MAF are supplied with a copy of reviewers' final reports (as required by the Animal Welfare Act). NAEAC's role is to take the report into account when considering the recommendation it will make to the Director-General on applications for a new code of ethical conduct. It is MAF's responsibility to determine whether the results of the review are satisfactory or unsatisfactory and to determine what steps, if any, the code holder must take to achieve a satisfactory level of compliance.

Reports also contain non-binding recommendations from the reviewer that code holders may find useful.

Each year since code reviews commenced, NAEAC and MAF have jointly written to the chief executives of all code holding institutions highlighting generic issues that arose during the previous year's reviews. Because so few reviews were undertaken in 2006 this initiative was deferred until 2007.

7 The Year's Issues

7.1 Accredited Reviewers and the "Moderation" Process

Since reviews became mandatory, NAEAC and MAF have held a teleconference annually with all accredited reviewers (see section 6.2) to discuss the reviews undertaken during the year. As there were only three reviews undertaken during 2006, it was decided to defer the next meeting until late 2007 when a larger number of code expiry reviews will have been undertaken.

7.2 Three Rs Award

The NAEAC Three Rs Award, which was instituted in 2003, recognises excellence in the humane use of animals in RTT through the implementation of the Three Rs, specifically:

- **replacement** of sentient animals in experiments with non-sentient or non-living alternatives at every opportunity;
- **reduction** in numbers to the minimum possible; and
- **refinement** of experimental techniques so as to minimise or eliminate any suffering involved.

The 2006 award was presented to Dr Craig Johnson from Massey University at the Royal Society's Science Honours Dinner in Auckland in November. Dr Johnson, a senior lecturer in veterinary neurophysiology, received the award in recognition of his work in developing a specialised anaesthesia technique and adapting it to a variety of applications in animal welfare research. His research contributes significantly to the refinement in methodology of pain research, allowing conclusions about the efficacy of methods of pain relief to be drawn using fewer animals and without causing pain in any animal.

7.3 Suggested Amendments to the Animal Welfare Act

NAEAC has previously made recommendations to the Minister of Agriculture suggesting amendments to the Animal Welfare Act. These amendments have not been made, and during 2006 NAEAC revisited the issues and reaffirmed its earlier recommendations.

These included:

- changing Part 6 of the Act to include a requirement for AEC approval to kill animals for RTT purposes
- changing the definition of "manipulation" to include treatment undertaken in the first half of gestation.

7.3.1 Killing as a manipulation

The Animal Welfare Act specifically excludes from the definition of "manipulation" the humane killing of animals for the purposes of undertaking RTT on the dead animal or tissues; thus, approval from an AEC to undertake such work is not required under the Act, although approval may be an "in-house" requirement in some organisations. The rationale for this statutory exclusion is that animals are killed for a variety of purposes (e.g. for food, fibre, sport or because they are unwanted) and killing them for research is essentially no different.

NAEAC believes that to exclude killing for RTT from the definition of "manipulation" fails to give due weight to the purpose of Part 6 of the Act and has advised accordingly.

7.3.2 Definition of "manipulation"

The definition of "animal" in the Animal Welfare Act includes "any mammalian fetus, or any avian or reptilian pre-hatched young, that is in the last half of its period of gestation or development". Thus, any manipulation undertaken in the first half of gestation or development is not considered to be a manipulation under Part 6 of the Act.

NAEAC believes that the Act needs to be extended so that any treatment in the first half of the gestation period is included in the definition of "manipulation", if that treatment interferes with the normal physiological, behavioural or anatomical integrity of the animal in the second half of gestation, after birth or in subsequent generations.

7.4 Communication between AECs

The advantages of AECs being able to communicate with each other directly were highlighted at the national NAEAC workshop (see section 6.1.2) and reinforced by attendees in their feedback survey. NAEAC encourages and facilitates the exchange of information among AECs.

7.5 Maori Perspectives

NAEAC acknowledges that there are instances where animals of importance to Maori are used in RTT. While not a legal requirement, NAEAC would like to encourage AECs to have regard, where relevant, to a possible Maori perspective on the decision making associated with such use of live animals.

7.6 Review of Manipulation Severity Scale

On behalf of NAEAC, MAF commissioned research to review the scale used for assessing the severity of live animal manipulations. The research provided a critique of the current manipulation severity scale rationale, terminology and category explanations, and compared these with others now used overseas. The main aims of the review were to ensure clarity and minimise ambiguity in definitions and descriptions of purposes and differences between categories. NAEAC has now made recommendations to MAF based on those identified in the commissioned report.

7.7 Attitudinal Research

MAF commissioned a national survey to investigate New Zealanders' attitudes towards the use of animals in RTT during 2005. Preliminary reports indicate national awareness and interest in these areas to be relatively low (e.g. only 33% of respondents declared an interest in the subject of animal use in RTT). However, the level of support for the use of animals in these areas was relatively high (e.g. 68% of respondents agreed that the use of animals for research and testing was acceptable as long as there was no unnecessary animal suffering). General awareness of regulations was quite low (e.g. 21% of respondents declared that they were aware of rules or regulations covering use of animals in RTT). When existing legislation was explained, 74% of respondents expressed support.

More complete reporting of the survey's findings is available in the *New Zealand Veterinary Journal* published in April 2007.

During 2006, NAEAC developed a communications strategy to extend the public awareness of the regulatory system for animal use in RTT.

7.8 Use of Animals in Schools

There has been a 6.5-fold increase in animal use reported by schools in this year's statistics, from 163 animals in the 2005 statistics report to 1,045 in 2006. NAEAC is committed to promoting the role of the New Zealand Association of Science Educators Animal Ethics Committee (NZASE AEC). Teachers and students are more aware of the requirements of the Animal Welfare Act and are applying in increasing numbers for ethical approval.

The NZASE AEC has provided a heightened awareness of the detail required in applications for approval, especially where intermediate and full primary school students and their teachers are involved in science and technology fairs. There is also a greater awareness among the science teaching and learning community of the importance of daily record keeping relating to the general health of the animals with which they are working – often family pets or animals on the family farm – and in their use of a supervisor and in consulting experts about particular animal species proposed to be used.

7.9 Liaison with Other Bodies

7.9.1 National Animal Welfare Advisory Committee

NAEAC needs to maintain a close association with the activities of the National Animal Welfare Advisory Committee (NAWAC). NAEAC's chairperson, being an ex officio member of NAWAC, facilitates this inter-committee liaison.

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

NAEAC continues to work with the Australian and New Zealand Council for the Care of Animals in Research and Teaching (ANZCCART) and MAF representatives to consider initiatives first discussed at the 2003 ANZCCART conference "Lifting the Veil". ANZCCART discussed developments in respect of "Lifting the Veil" with NAEAC and AEC members at the NAEAC workshop in November.

7.9.3 Bioethics Council

NAEAC continued to promote a working relationship with the Bioethics Council during 2006. As requested, NAEAC responded to the Minister of Agriculture's request for advice on issues raised in the Bioethics Council's report entitled "The Cultural, Ethical and Spiritual Aspects of Animal-to-human Transplantation".

All code holders are required to keep records as 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 AEC, as well as anyone with an approval to use non-human hominids.)

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 MAF 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.

Records of the number of animals used in long-term projects are not reported annually to MAF but every three years or when the project is completed (if less than three years).

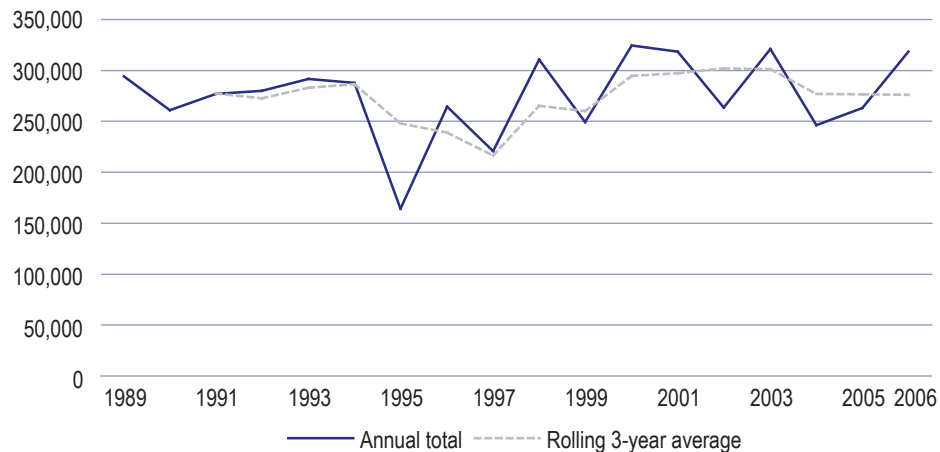
The regulations provide penalties for non-compliance, including late submission of returns or supplying false or misleading figures.

8.1 Animal Usage

During 2006, a total of 318,489 “animals”² were reported as “manipulated”³ in “research, testing and teaching”,⁴ which represents a 21% increase (+55,275) on 2005 numbers.

Some of this increase can be attributed to the three-yearly cycle of statistics reporting. In 2000 the highest ever number of animals were manipulated (324,395), the second highest number was in 2003 (320,911), and after several years of below average figures, the 2006 animal use statistics were again considerably higher than the long-term average (of approximately 275,400). The three-year rolling average line in the accompanying graph provides a more accurate view of the long-term trends in total animal use by compensating for the effects of the three-yearly reporting cycle.

Animals manipulated 1989 to 2006



In the 2006 reporting year, the biggest increases were recorded for sheep, cattle and deer, with a combined increase of 30.6% (+33,783), and birds of 60.6% (+22,404). There was also a large increase in the number of reptiles manipulated, up from 3,231 in 2005 to 12,118 in 2006. Decreases were recorded in rats and mice of 9.8% (-8,359), fish of 24.1% (-2,789) and marine mammal numbers dropped from 1,870 in 2005 to 156 in 2006. The combination of all other species, which represented 5.2% of the total number of animals, increased by 22.8% (+3,063). See appendix 6 for further detail.

² As defined in section 2(1) of the Animal Welfare Act. This definition is set out in appendix 5 of this report.

³ As defined in section 3 of the Animal Welfare Act. This definition is set out in appendix 5 of this report.

⁴ As defined in section 5 of the Animal Welfare Act. This definition is set out in appendix 5 of this report.

Those species most commonly used in 2006 were (in order) sheep, mice, birds and cattle. These represent 80.3% of the total animals manipulated for RTT. Sheep, mice and cattle have all been included in the four most commonly used animals since 1989. Birds featured in 2005, displacing rats as the fourth most commonly used species. In 2006, birds were the third most commonly used species.

Welfare assessments were undertaken on nearly 45,000 broiler chickens in 2006. The chickens needed to be penned in groups to be assessed for individual gait scores. This confinement is not part of normal husbandry practice. In addition nearly 9,000 fertile, germ-free chicken eggs were imported. These eggs were used to investigate suspected cases of exotic avian disease and for ongoing surveillance for avian influenza and other pathogens in wild bird species. They were also used for the isolation of viruses from feral pests, including possums in research aimed at finding new pest biological control agents.

Nearly 34,200 more farm animals (sheep, cattle, deer, goats and pigs) were reported in the 2006 statistics returns. Forty-six per cent of all animals manipulated in 2006 were agricultural livestock, compared with 42% in 2005. Projects involving farm animals included:

- Over 31,000 sheep were used to record production and nematode parasite-related traits in stud flocks utilising the collection of live weight records, faecal sampling, blood samples and/or skin tests.
- New fly and lice treatments were investigated using nearly 13,000 sheep.
- More than 12,000 sheep were screened for DNA markers (using a spot of blood) to determine their disease resistance status (e.g. to identify individuals with high genetic resistance to foot rot, internal parasites or high cold tolerance).
- Some of the other smaller sheep projects undertaken in 2006 which account for a significant number of the total sheep manipulated include research on reproduction and the improvement of reproductive efficiency including birth weight, survival rate and growth; investigation of novel parasite control strategies; novel or improved vaccines for infectious diseases; feed trials and product evaluation; exploration of geographical or photoperiodic variations in wool characteristics; validation of non-invasive methods for determining the level of stress in animals and monitoring circulating hormone levels.
- On-farm studies were undertaken to determine the predominant risk factors which influenced the presence and clinical status of Johne's disease in deer. This involved the collection of blood and faeces from nearly 6,500 animals.
- Over 12,000 cattle were used for artificial insemination training.
- Studies to improve cow welfare during dry-off, enhancing immunity, feeding trials and investigations into disease resistance in calves were also undertaken.

The increase in the number of reptiles was a result of a small number of projects involving relatively large numbers of animals:

- McCann's skinks and common skinks (approximately 4,200) were caught, marked and released to determine the importance of predation by hedgehogs in regulating populations.
- A major conservation research programme involving 3,400 animals was completed during the year on the biology of New Zealand reptiles, including skinks, geckos and tuatara. Techniques included pitfall trapping of skinks and geckos for ecological studies; tracking of animals in the field using radio-transmitters for behavioural studies; laparoscopic methods to determine the sex of juvenile tuatara for analysis of the effects of incubation temperature on sex determination; captive husbandry for research, conservation and education purposes; and blood sampling and cloacal swabbing for disease and population diversity studies.
- Approximately 3,000 common geckos and skinks, McCann's skinks and spotted skinks were reported in a research project investigating the effects of predator removal on lizard fauna in a threatened coastal ecosystem.
- A range of reptiles from a breeding unit were part of a teaching programme involving third-year students learning animal handling, animal tissue examination, and the structure and function of reproductive systems.

Of the 2,265 "miscellaneous species" used in 2006, over half were cephalopods / crustaceans (1,562) used mainly for teaching and to a lesser degree for biological research and species

conservation. The remaining animals in this category comprised 450 mustelids (2 weasels, 252 stoats and 196 ferrets), hedgehogs (96), tammar wallabies (68), alpaca (38), short-tailed bats (35), chimpanzees (12, see section 5.5.1 of this report for more detail), Californian sea lions (2) and Asian elephants (2).

Wherever it appears, the category “cats” includes feral cats. Likewise, feral rats and mice are included in the “rats” and “mice” categories.

8.2 Source of Animals

Code holders 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 in the past two years.

Source of animals	2006	2005
Commercial sources	33.2%	20.8%
Breeding units	31.0%	28.6%
Farms	19.2%	28.0%
Captured	8.3%	11.6%
Born during project	4.7%	9.6%
Imported	2.9%	0.4%
Public sources	0.6%	1.0%

The largest number of animals (83.4%) came from commercial sources, breeding units and farms. These three categories included most of the farm animals, rabbits and rodents reported in 2006. Many of the birds (80.2%) were also included in these categories; however, the sterile pre-hatched chicken eggs made up most (94.5%) of the imported category. Aquatic species, possums and other pest species, reptiles and cephalopods / crustaceans were mostly captured. A greater variety of species were born as part of projects in 2006. Sheep featured most predominantly (with 7,399 lambs born), followed by mice and rats (2,144 and 2,028 born respectively), then possums and fish (1,613 and 1,079 respectively). Some birds, cattle, deer, amphibians, reptiles and guinea pigs were also born as part of projects. Most of the cats and dogs used were publicly sourced.

Compared with 2005, significantly more farm animals (sheep, cattle, deer, goats and pigs) were sourced from commercial sources (+61,258) and fewer from farms (-12,670). The pre-hatched chicken eggs boosted the imported category compared with 2005. In 2006, 10,279 fewer animals were born during projects than in 2005. Research with rodents, and to a lesser extent sheep, was responsible for the reduction in the number of young born (-10,262 and -2,812 respectively).

8.3 Status of Animals

Code holders are required to categorise the status of the animals they use. The following table breaks down the animal status for the past two years.

Status of animals	2006	2005
Normal / conventional	88.3%	85.5%
Protected species	4.0%	5.4%
Unborn / pre-hatched	3.1%	0.3%
SPF / germ-free	2.6%	6.6 %
Transgenic / genetically modified	1.8%	1.8%
Diseased	0.1%	0.3%
Other	0.1%	0.06%

The majority of animals manipulated in RTT in New Zealand are classified as normal healthy conventional animals. In 2006, 281,177 animals were in this main category. Birds were the most commonly manipulated protected species in 2005 (65.6%), whereas in 2006 89.1% of the protected species manipulated were reptiles (see section 8.1 for further detail).

Unborn / pre-hatched animal numbers increased markedly from 2005, primarily because of the rise in the number of chicken eggs used (+9,283). While the number of unborn mammals used was down on the previous year (-289), for the first time in a number of years pre-hatched reptiles (+15) were used for species conservation / teaching.

In 2006, 5,730 animals were transgenic / genetically modified, which was up slightly (+893) from 2005. Mice make up 96.8% of the animals in this category. Cattle (95), amphibians (73) and sheep (15) made up the difference.

Fewer than half (47%) the number of specific pathogen-free (SPF) / germ-free animals were manipulated in 2006 compared with 2005. Rabbits and rodents account for most of the animal usage in this category.

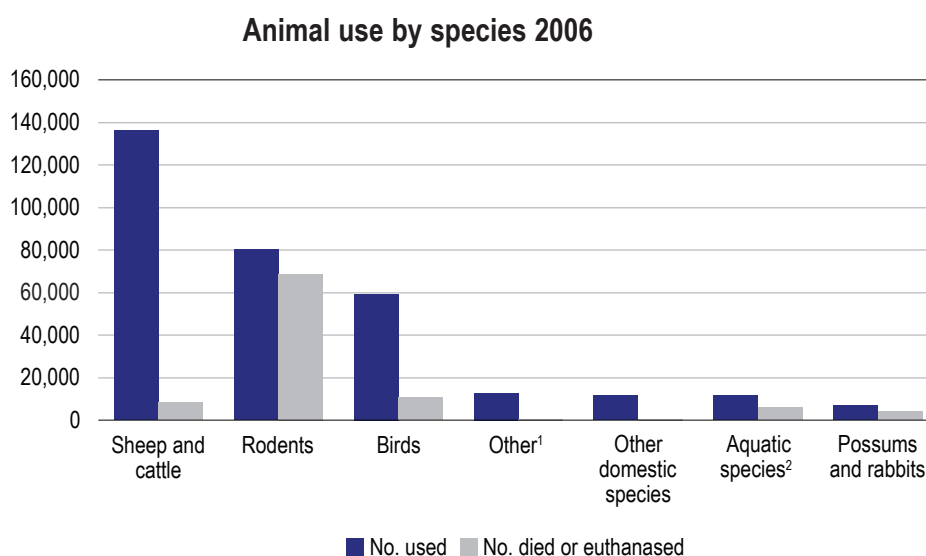
8.4 Outcome

Appendix 6 shows the five-year summary of the animals used (by species) and the percentages that died or were euthanased during, or after, manipulations. Over the previous four years these figures have fluctuated between 51% (in 2002) and 40% (in 2005). In 2006, this figure was 31% – the other 69% were retained, returned, released to the wild or disposed of to others.

The number of animals dying or euthanased as part of the manipulation in 2006 (98,933 animals) was similar to the number recorded in 2005 (104,801 animals). There was a reduction in the number of rodents (-17,072) and an increase in the number of birds and farm animals (+6,114 and +4,386 respectively) that died or were euthanased as part of manipulations. The increase in bird deaths was largely attributable to the use of fertile eggs.

The high survival rates (94%) for livestock reflect the number of trials of low invasiveness that took place while the animals remained in their normal farm environment and continued as part of the herd / flock at the conclusion of the trial.

The following histogram depicts information on the proportion of animals that died or were euthanased for the major groups of species.

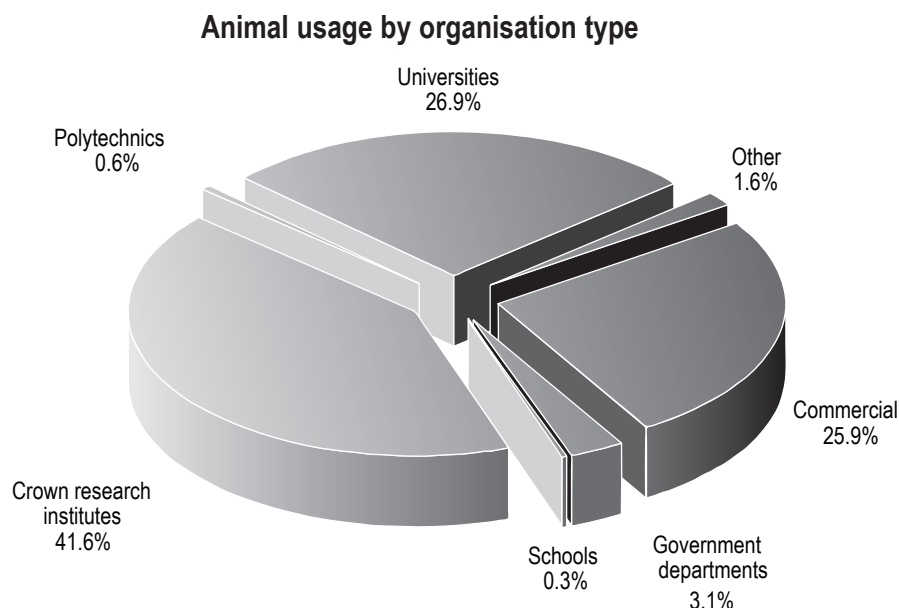


¹ "Other" includes reptiles and miscellaneous species as described in section 8.1.

² "Aquatic species" includes amphibians, fish, marine mammals and cephalopods / crustaceans.

Organisation Type

Appendix 7 tabulates animal usage by organisation type over the past five years. The pie chart below depicts the 2006 information graphically. The top three user groups were (in order) Crown research institutes, universities and commercial organisations.



Crown research institutes (CRIs) reported the use of 78,167 more animals, which elevated their share of the animal use from 21% in 2005 to 41.6% in 2006. There were significant increases in the number of birds (+43,500) utilised for husbandry research; sheep (+22,742) for both biological and husbandry research; cattle (+7,730) for husbandry research; and reptiles (+3,790) for conservation purposes. Fish (-1,229) were the only species to experience a sizeable reduction. Almost without exception, all other species reported small increases in animal use by CRIs in 2006. Discussion in section 8.1 accounts for much of the RTT responsible for these changes.

The 20,597 decrease in the number of animals manipulated by universities in 2006 came after a 32,500 increase reported in 2005. This drop in animal numbers, together with the large increase in overall animal use in 2006, resulted in a substantial reduction in the percentage of animals used by universities. As expected, the number of birds reported in 2006 fell (-29,833) after reporting on three-year studies in 2005. The number of sheep used by universities continued to increase in 2006 (+6,647) and the number of mice continued to decline (-4,762). Other notable changes included a reduction in the number of marine mammals (-1,723) and increases in both reptiles (+5,795) and deer (+4,975).

Commercial organisations' share of RTT decreased from 38% in 2005 to 25.9% in 2006, involving 16,912 fewer animals than in 2005. The increase in the number of cattle used for teaching (+9,913) was more than offset by the reduction in the number of sheep (-15,084), mice (-6,464) and rats (-1,106).

Government departments used a total of 9,899 animals or 3.1% of the total number of animals used in 2006. This is well up on the 759 (0.3%) used in 2005. The 8,508 fertile eggs used for disease surveillance accounted for most of this increase.

Organisations in the "other" category include non-university medical research institutes, zoos / wildlife parks and individuals. Animal usage by those in this group increased (+4,894) in 2006. Rodents made up 99% of the species used. Small numbers of sheep, birds, chimpanzees, elephants, Californian sea lions and cephalopods / crustaceans, and a reptile were also used.

Polytechnics and institutes of technology reported a reduction (-299) in the number of animals manipulated in 2006 compared with 2005. The majority of animals used by this sector are for teaching purposes, usually for low impact animal husbandry / veterinary nursing or similar training.

Schools have experienced considerable growth in the number of animals reported over the past two years. NAEAC has reported on this separately in section 7.8 of this report. Fewer than 23 animals were manipulated in each of the years between 2001 and 2004. In 2006, all 1,045 animals were used for “teaching” purposes.

8.6 Animal Reuse

In 2006, the percentage of animals used more than once for RTT was similar to 2005 (4.8% and 4.4% respectively). This compares with 7% in 2004, 8% in 2003 and 4.9% in 2002. Domestic animals, including livestock, were more likely to be reused than rodents and rabbits (92.7% and <1.0% of the total number of animals reused respectively). With the exception of marine mammals, a small number of every animal type was reported as being used more than once in 2006.

8.7 Purpose of Manipulation

Organisations are required to provide information on the purpose of manipulations. The table below shows the breakdown and compares the figures with those reported in 2005. The full definitions of the “purpose of manipulation” categories are outlined in appendix 8.

Purpose of manipulation	% of animals used	
	2006	2005
Animal husbandry	24.9	17.6
Basic biological research	23.7	21.6
Veterinary research	18.1	17.7
Testing	11.6	25.4
Medical research	7.2	4.8
Teaching	7.1	3.6
Species conservation	4.0	2.4
Environmental management	1.7	2.9
Production of biological agents	1.3	1.6
Other	0.3	2.1
Development of alternatives	0.0	0.3

Changes were made to the way statistics are collected in the “purpose of manipulation” section as a result of recommendations from the 2003 ANZCCART conference. Three more descriptive categories (testing, production of biological agents and development of alternatives) have replaced the “commercial work” category, which has now been removed from the table. Extra information has also been collected for the “very severe suffering” category (see section 8.8). These improvements were achieved fairly promptly, as the categories in the “purpose” part of the statistics form are not specified in the Animal Welfare (Records and Statistics) Regulations 1999 and so legislative change was not required.

The number of animals manipulated for animal husbandry purposes rose 71% in 2006. This increase was influenced by the number of chickens used to investigate lameness in the broiler poultry industry (+43,500). Basic biological research was boosted by an increase in the number of sheep (+26,575), where reporting of large studies investigating traits in stud breeding flocks made a significant impact. All other farm animals, with the exception of pigs, showed smaller increases in basic biological research activity (+2,258). The increase in veterinary research, although not as significant, can mostly be attributed to the numbers of fertile chicken eggs manipulated in 2006.

Animals reported in the “testing” category in 2006 made up slightly more than 11% (36,799) of the total number of animals manipulated in 2006. This differs significantly from 2005, when testing accounted for 25.4% (66,737) of the total number of animals manipulated. No birds were used for testing in 2006, unlike the previous year when 22,500 chickens were used to test feed products. Rodents made up 91.2% of this category. Farm animals (1,945), rabbits (1,233), dogs (20) and possums (18) were also used for testing in 2006. Testing was carried out by commercial organisations (66%), CRIs (33%) and universities (<1%).

The number of animals manipulated for medical research increased by 10,159 in 2006 (a rise of approximately 80%). An increase of 8,457 rodents and 1,651 farm animals elevated the total number of animals used for medical research to 22,926. Dogs (12) and rabbits (103) were the only other species manipulated for medical research in 2006.

Teaching utilised 12,958 more animals than in 2005, which brought the total to 22,483 in 2006. Most of this increase can be apportioned to three-yearly reporting cycles of two large commercial organisations teaching artificial insemination in cattle. Also notable was the increase in the number of mainly cephalopods / crustaceans (564), farm animals (240) and mice (131) used for teaching in schools or school-related activities. Schools / students also used cats (34), dogs (9), birds (15), possums (7), horses (2), rabbits (2), guinea pigs (3) and alpaca (38).

As in 2005, approximately 4,270 animals were utilised in the production of biological agents (see Appendix 8 for definition detail). No animals were reported as being manipulated for the development of alternatives.

Animals manipulated for species conservation and environmental management tended to be protected species, aquatic species, reptiles and pest species (rodents, mustelids and possums). Cattle (1,316) were also used to study environmental management.

8.8 Grading of Animal Manipulations

Animal manipulations are graded according to the following five-point severity scale specified in the Animal Welfare (Records and Statistics) Regulations:

- 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 9 summarises this information by species. The tables below provide summaries by year and by species group.

8.8.1 Manipulation grading of animals used over the past five years

All of the increases in the number of animals manipulated for RTT in 2006 were allocated to the “no” or “little” suffering manipulation grades. Many of the examples of animal use given throughout this report are represented in these low impact categories purely because they involve by far the biggest percentage of animals. The 5.1% of animals that experienced “severe” or “very severe” suffering are discussed at length in section 8.8.2.

Animal numbers in the “no” or “little” suffering manipulation grades have fluctuated over the past five years (from a low of 201,087 in 2004 to 277,048 in 2006) and can be directly correlated with the change in total number of animals used in most years.

The number of animals in the “moderate” suffering manipulation grade declined by 14.5% (-4,277) to 25,228 animals in 2006, which is the lowest number in the past five years.

The number of animals in the “severe” or “very severe” suffering manipulation grades declined by 1.2% – 206 fewer animals were manipulated in these high impact categories. For four of the past five years, the number of animals in these grades has remained relatively static at around 16,000 (\pm 500) animals per year.

Year	Total animals reported	Manipulation grade categories		
		“No” or “little” suffering	“Moderate” suffering	“Severe” or “very severe” suffering
2002	263,684	206,416	41,451	15,817
2003	320,911	273,971	31,391	15,549
2004	246,122	201,087	32,592	12,443
2005	263,214	217,290	29,505	16,419
2006	318,489	277,048	25,228	16,213
		87.0%	7.9%	5.1%

8.8.2 Manipulation grading of animals used in 2006

All but seven of the animals in the “very severe suffering” grade were rodents, mainly mice (10,407) but also guinea pigs (918) and rats (77). The other species were cattle (6) and a possum. Of the 11,402 rodents in the “very severe suffering” grade, 81.3% were used for testing, 18.3% for veterinary research into the development of new vaccines against diseases in animals and 0.4% in basic biological research. The cattle were manipulated for basic biological research and the possum for environmental management.

In the “severe suffering” grade, most of the sheep and cattle (98.8%) were used for basic biological research; the remainder were used for veterinary research. Most of the rodents were spread evenly between testing and medical research (48.4% and 45.4% respectively), while the others were used for basic biological research, veterinary research and environmental management. The birds in the “severe suffering” grade were used for species conservation and basic biological research. The pest species, including possums, mustelids, rodents and feral cats, were used for environmental management and basic biological research. The bats and reptiles caught were used in species conservation and basic biological research.

2006 summary	Total reported	Number in each manipulation grade				
		No suffering	Little suffering	Moderate suffering	Severe suffering	Very severe suffering
Sheep and cattle	136,280	48,510	85,107	2,224	433	6
Rodents	80,185	3,088	42,054	20,822	2,819	11,402
Birds	59,404	45,534	13,297	385	188	0
Other ¹	12,821	1,120	10,810	601	290	0
Other domestic species	11,598	1,247	10,250	99	2	0
Aquatic species ²	11,490	2,856	8,075	559	0	0
Possums and rabbits	6,711	1,003	4,097	538	1,072	1
Grade totals	318,489	103,358	173,690	25,228	4,804	11,409
Grade percentages		32.5%	54.5%	7.9%	1.5%	3.6%

¹ “Other” includes reptiles and miscellaneous species as described in section 8.1.

² “Aquatic species” includes amphibians, fish, marine mammals and cephalopods / crustaceans.

The majority of rodents in the “severe suffering” and “very severe suffering” grades were used for the following purposes:

- The majority (70%) were used to ensure the safety and efficacy of animal health products to meet regulatory requirements both nationally and internationally. These products prevent suffering and death in millions of other animals, both livestock and companion animals. In recent years the New Zealand industry, with support from government agencies, has promoted in vitro (test-tube) tests which have been developed in New Zealand. Agreement from international regulatory agencies is required to replace the existing animal-based tests. Some progress has been made in this area during 2006 (see section 8.10 for further comment).
- Veterinary research used 15% of the rodents in these grades to develop new vaccines to protect animals against disease.
- Rats (9%) were used in medical research studying arthritis and wound healing.
- Mice (5%) were used for public health testing, mainly for algal bloom-induced marine biotoxins which were first detected in New Zealand’s coastal waters in the early 1990s. The biotoxins are bioaccumulated by shellfish and can cause acute illness and even death in shellfish consumers. Testing on mice (bioassay testing) ensures that shellfish are safe for New Zealand and overseas consumers to eat (see section 8.10 for further comment).

Possoms, and to a lesser extent a variety of other species (including rodents and mustelids), continued to be used in the “severe suffering” and “very severe suffering” grades for environmental management research to assess the efficacy and humaneness of improved or new toxins and toxic baits, and new trap designs.

While dogs were manipulated for both testing (20) and medical research (12), all dogs were allocated “no suffering” or “little suffering” manipulation grades (see appendix 8).

8.9 NAEAC Comment

In considering 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 AEC (all of which include three independent 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 AEC benefits from the input and perspective of the external members. The AEC is then responsible for ensuring that the research is undertaken as specified in the approved application. NAEAC, as such, plays no direct role in the approval or monitoring of individual projects but provides general information and advice to AECs.

NAEAC continues to promote the concepts of humane science and the Three Rs (replacement, reduction and refinement) and to actively pursue specific initiatives that 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 *RDS News* to all AECs
- secondment of New Zealand personnel to the Home Office to gain experience in the United Kingdom 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.

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 once the research objective is achieved.

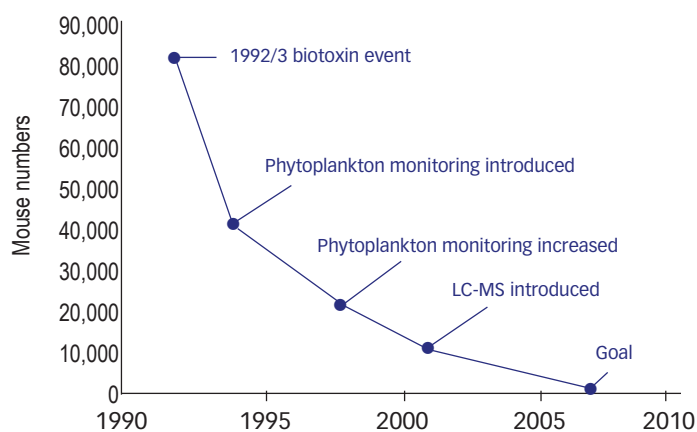
8.10 New Zealand's Commitment to the Three Rs

New Zealand's ongoing commitment to the Three Rs (replacement, reduction and refinement) of the use of live animals in RTT was evident both nationally and internationally in 2006.

Mice are now no longer used in the manufacture and testing of Toxovax[®] vaccine for sheep. Introduction of new tissue culture technology to replace bioassay tests represents a saving of over 300 mice per year.

In 2000/01 the Cawthron Institute achieved a world first in completing, validating and implementing a liquid chromatography mass spectrometry (LCMS) based method for the detection of 17 toxins in four of the eight toxin groups. In 2001, the New Zealand Food Safety Authority (NZFSA) approved this method for regulatory use in New Zealand – this was the first such approval issued worldwide. The LCMS method has proved to be faster, more sensitive and more specific than the mouse bioassays. The development of the early alert algal monitoring programme and the introduction of the LCMS method in New Zealand have seen a significant reduction in the number of mouse bioassays being undertaken.

Number of mice used per year for marine biotoxin testing



graph reproduced with the permission of the Cawthron Institute

Moreover, during a recent international conference on molluscan shellfish safety, a round-table discussion on international regulatory changes in marine biotoxin standards was held with key experts from Europe, Canada, the United States and New Zealand. A unanimous outcome of this session was that non-animal methods are validated and available for use and that these should be implemented on a country-by-country basis.

There are several obstacles to the implementation of these methods:

- lack of harmonised validation criteria for judging method acceptability
- limited availability of certified reference materials
- lack of cohesion between regulators and scientists
- lack of toxic equivalence factors (a means of comparing the toxicity of very different compounds) for calculating the potency of toxin analogues.

In New Zealand, the export focus of the shellfish industry requires the NZFSA to ensure compliance with the regulations of importing nations. Nonetheless, the NZFSA has a strong commitment to the implementation of non-animal-based testing methods.

APPENDIX 1

Organisations with an Approved Code of Ethical Conduct or with Notified Arrangements to Use an Approved Code

(As at 31 December 2006)

* Use another organisation's AEC

*Abacus Biotech Ltd P O Box 5585 DUNEDIN	*Bayer NZ Ltd P O Box 2825 AUCKLAND	*Cook, Trevor George Manawatu Veterinary Services 43 Manchester Street FEILDING
AgResearch Ltd (3 AECs) Ruakura Agricultural Centre Private Bag 3123 HAMILTON	*BioLogic Scientific Consulting Ltd P O Box 125204 St Heliers AUCKLAND	*Dairy Production Systems Ltd P O Box 24132 HAMILTON 3253
*AgriQuality NZ Ltd Private Bag 3080 HAMILTON	*Biosecurity New Zealand Investigation and Diagnostic Centre P O Box 40742 UPPER HUTT	*Deer Improvement Ltd Invermay Agricultural Centre Private Bag 50034 MOSGIEL
Ambreed New Zealand Ltd P O Box 176 HAMILTON	*Bishop Viard College P O Box 50075 PORIRUA	Department of Conservation P O Box 10420 WELLINGTON
Ancare New Zealand Ltd P O Box 36240 Northcote NORTH SHORE CITY	*Bomac Research Ltd P O Box 76369 MANUKAU CITY	*Dexcel Ltd Private Bag 3221 HAMILTON
*Ancrum Consultancies 134 Wild Road Weedons RD 5 CHRISTCHURCH 7675	*Caledonian Holdings Ltd P O Box 82 Takanini SOUTH AUCKLAND	*Dairs NZ Ltd P O Box 959 HAMILTON
*Animal Breeding Services Ltd 3680 State Highway 3 RD 2 HAMILTON	*Canesis Network Ltd Private Bag 4749 CHRISTCHURCH	*Elanco Animal Health P O Box 259354 Greenmount AUCKLAND 1730
*Animal Health Centre P O Box 21 MORRINSVILLE	*Cawthron Institute Private Bag 2 NELSON	*ES Plastics Ltd P O Box 5682 Frankton HAMILTON
*Animal Health Research Ltd PO Box 39491 Howick AUCKLAND	*Central Southland Veterinary Services Ltd P O Box 12 WINTON	Estendart Ltd Massey University Private Bag 11222 PALMERSTON NORTH
*Argenta Manufacturing Ltd P O Box 75340 Manurewa MANUKAU 2243	*Chemeq Ltd 3 Brodie Hall Drive Technology Park Bentley WA 6102 AUSTRALIA	*Fonterra Innovation Private Bag 11029 PALMERSTON NORTH
Auckland Zoological Park Private Bag Grey Lynn AUCKLAND 1	Christchurch Polytechnic Institute of Technology P O Box 540 CHRISTCHURCH	*Fonterra / ViaLactia BioSciences Private Bag 92032 AUCKLAND
Bay of Plenty Polytechnic Private Bag 12001 TAURANGA		*Fort Dodge NZ Ltd Private Bag 92903 Onehunga AUCKLAND

*Four Rings Enterprises Ltd 9 Hurstwood Place Glen Innes AUCKLAND	*Johnson & Johnson (New Zealand) Ltd P O Box 9222 AUCKLAND	Massey University Private Bag 11222 PALMERSTON NORTH
*Geneco Ltd P O Box 9288 HAMILTON	*Karori Reservoir Wildlife Trust Inc P O Box 9267 WELLINGTON	*Merial NZ Ltd P O Box 76211 MANUKAU CITY *Mount Albert Bioactives Research Centre Private Bag 92169 Mt Albert AUCKLAND
Genesis Research & Development Corporation Ltd P O Box 50 Parnell AUCKLAND	*Kelly Tarlton's Antarctic Encounter and Underwater World P O Box 42021 Orakei AUCKLAND	National Institute of Water & Atmospheric Research Ltd P O Box 8602 Riccarton CHRISTCHURCH
*Hillcrest High School P O Box 11020 HAMILTON	*KODE Biotech Ltd P O Box 5965 Wellesley Street AUCKLAND 1141	Nelson Marlborough Institute of Technology Private Bag 19 NELSON
*Horticulture & Food Research Institute of NZ Ltd Private Bag 92169 AUCKLAND	*Kotare Bioethics Ltd P O Box 2484 Stortford Lodge HASTINGS	*Neuren Pharmaceuticals Ltd P O Box 9923 Newmarket AUCKLAND 1030
*Hutt Hospital P O Box 91307 LOWER HUTT	*Lakeland Vets Ltd P O Box 123 REPOROA	New Zealand Association of Science Educators C/- Royal Society of New Zealand P O Box 598 WELLINGTON
*ICPbio Ltd P O Box 1607 AUCKLAND	Landcare Research NZ Ltd P O Box 40 LINCOLN 7640	New Zealand Forest Research Institute Ltd P O Box 3020 ROTORUA
*ImmunoEthical Associates (NZ) Ltd Crofton Park 4 Marshs Road CHRISTCHURCH	Lincoln University P O Box 94 Lincoln University CANTERBURY 8150	*New Zealand Institute for Crop & Food Research Ltd Private Bag 4704 CHRISTCHURCH
*Impian Technologies Ltd P O Box 17263 Karori WELLINGTON	*Livestock Improvement Corporation Ltd Private Bag 3016 HAMILTON	*New Zealand Institute of Advanced Laparoscopic Surgery Suite 290, St Andrews Place 33 North Street Spring Hill QLD 4000 AUSTRALIA
*Institute of Environmental Science & Research Ltd Private Bag 92021 AUCKLAND	Living Cell Technologies NZ Ltd P O Box 23566 Hunters Corner MANUKAU 2155	*New Zealand Leather and Shoe Research Association (Inc) Private Bag 11333 PALMERSTON NORTH
*InterAg (DEC International NZ Ltd) Private Bag 3123 HAMILTON	*Malaghan Institute of Medical Research P O Box 7060 WELLINGTON SOUTH	
*Intervet NZ Ltd 12 Shakespeare Avenue UPPER HUTT 5140	*Marlborough Regional Science & Technology Fair Committee C/- Marlborough Girls' College 21 McLaughlin Street BLENHEIM	
*Invitrogen NZ Ltd P O Box 12502 Penrose AUCKLAND 1135	*Mason Consulting Dunns Crossing Road RD 5 CHRISTCHURCH	*Novartis NZ Ltd Private Bag 19980 Avondale AUCKLAND
*IVP International New Zealand Ltd Private Bag 23026 HAMILTON		

*Oamaru Veterinary Services 311 Thames Street AMARU	Southern Institute of Technology Private Bag 90114 INVERCARGILL	Waikato Institute of Technology Private Bag 3036 HAMILTON 2020
*On-Farm Research Ltd P O Box 1142 HASTINGS	*The New Zealand Merino Company Ltd P O Box 25160 CHRISTCHURCH	*Waikato Science Teachers' Association C/- 8 Woodland Drive HAMILTON
*Otago Polytechnic Private Bag 1910 DUNEDIN	Thermo Fisher Scientific Inc P O Box 658 TAURANGA	*Wakefield Gastroenterology Research Trust Private Bag 7909 WELLINGTON SOUTH
*Parnell Laboratories NZ Ltd P O Box 58502 Greenmount AUCKLAND	*Towers Consulting 27 Mansel Avenue HAMILTON	*Wanganui Veterinary Services Ltd P O Box 911 WANGANUI
*Pest Control Research Ltd P O Box 7223 CHRISTCHURCH	*Unitec Institute of Technology Private Bag 92025 AUCKLAND	*Wellington Institute of Technology Private Bag 39803 WELLINGTON
*Pest-Tech Ltd P O Box 40 LEESTON	Universal College of Learning Private Bag 11022 PALMERSTON NORTH	*Xcluder Pest Proof Fencing Company Ltd 1000C Hamurana Road RD 2 Hamurana ROTORUA
*PGG Wrightson Consulting P O Box 42 DANNEVIRKE	University of Auckland Private Bag 92019 AUCKLAND	*Zenith Technology Corp Ltd 43 Ridge Crescent WANAKA
*PGG Wrightson Seeds P O Box 939 CHRISTCHURCH	University of Canterbury Private Bag 4800 CHRISTCHURCH	
*Pharma Pacifica P O Box 22 ASHHURST 4847	University of Otago (3 AECs) P O Box 913 DUNEDIN	
PharmVet Solutions P O Box 46153 Herne Bay AUCKLAND 1147	University of Waikato Private Bag 3105 HAMILTON	
*Photonz Corporation Ltd 442 Scenic Drive Waiatarua WAITAKERE CITY	Valley Animal Research Centre 43 Kaiapo Road HASTINGS	
*Protex Corporation Ltd P O Box 2615 AUCKLAND	*Vet Resource 316 Pokuru Road RD 5 TE AWAMUTU 2400	
*Samuel Marsden Collegiate School Private Bag Karori WELLINGTON	Victoria University of Wellington P O Box 600 WELLINGTON	
Schering-Plough Animal Health Ltd Private Bag 908 UPPER HUTT	*Virbac Laboratories (New Zealand) Ltd 30 Stonedon Drive East Tamaki AUCKLAND 1701	
South Pacific Sera Ltd P O Box 27 TIMARU	*Virionyx Corporation Ltd P O Box 91806 AUCKLAND	

APPENDIX 2

Codes of Ethical Conduct Revoked or Expired and Notified Arrangements Terminated

(As at 31 December 2006)

- Agriculture New Zealand Ltd
- Agri-Feeds Ltd
- Agrimm Biologicals Ltd
- AgVax Developments Ltd
- Agvet Consultants 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)
- Auckland University of Technology
- Autogenous Vaccines
- Baker, Allan J
- Bioscience Corporation Ltd
- Biotechnology Division, DSIR
- Captec (NZ) Ltd
- Central Institute of Technology
- Cooks Laboratories
- Coopers Animal Health New Zealand Ltd
- Crown Research Institutes Palmerston North Campus
- Crusader Meats NZ Ltd
- Department of Education
- Diverse Animal Holdings
- Ecology Division, DSIR
- Embrionics Ltd
- Equine Fertility Services Ltd
- Ethical Agents Ltd
- Falkirk Scientific Foundation Ltd
- Feral R & D Ltd
- Get Real Productions
- Grasslands Division, DSIR
- Green Lane & National Women's Hospitals
- Health Waikato
- Impian Technologies Ltd
- Info-Brok
- Kristin School
- 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
- Nelson Hospital
- New Zealand Aluminium Smelters Ltd
- New Zealand Sheepac Ltd
- New Zealand Trade and Enterprise (formerly Industry New Zealand)
- New Zealand Water Management Ltd
- New Zealand Wildlife Rehabilitation Trust
- Newall, Michael Douglas
- Orana Park Wildlife Trust
- P A Biologicals New Zealand
- Palmerston North Campus, DSIR
- Palmerston North Hospital Board (later known as Manawatu-Wanganui Area Health Board)
- Parkway College
- Paxarms
- Plade Holdings Ltd
- PPL Therapeutics (NZ) Ltd
- Queen Margaret College
- Rhône-Poulenc (NZ) Ltd
- RisqA Veterinary Consulting
- Robbins, Lloyd
- Roche Products NZ Ltd
- Saint Mary's College
- Salmond Smith Biolab Ltd
- Scots College
- Shell Chemicals New Zealand Ltd
- Slacek, Brigitte
- Smith, Catherine H
- Smith Kline Beecham (New Zealand) Ltd (formerly Smith Kline & French NZ Ltd)
- South Auckland Health
- South Greta Farms Ltd
- Sovereign Feeds Ltd
- Stockguard Laboratories (NZ) Ltd
- Suta Export Ltd
- Tatua Co-operative Dairy Company Ltd
- Tauhara Furs Partnership
- The New Zealand King Salmon Company Ltd
- Tompkins, Daniel M
- Travenol Laboratories (New Zealand) Ltd (later known as Baxter Healthcare Ltd)
- Van Wijk, Niek
- Venous Supplies 1990 Ltd
- Veterinary Enterprises Ltd
- Ward, Christopher G
- WatPa Enterprises Ltd
- Wellington High School and Community Institute
- Wellington Polytechnic
- Woodland Goats Ltd
- Wrightson Breeding Services Ltd
- Young's Animal Health (NZ) Ltd

APPENDIX 3

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
- 2001 Annual Report
- 2002 Annual Report
- 2003 Annual Report
- 2004 Annual Report
- 2005 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
- Issue 18 – July 2002
- Issue 19 – May 2003
- Issue 20 – December 2003
- Issue 21 – August 2004
- Issue 22 – May 2005
- Issue 23 – December 2005
- Issue 24 – August 2006

NAEAC Guides

- *Good Practice Guide for the Use of Animals in Research, Testing and Teaching* (September 2002)
- *A Culture of Care: A Guide for People Working with Animals In Research, Testing and Teaching* (October 2002)
- *Guide to the Preparation of Codes of Ethical Conduct* (September 2006)

These publications are available on the Internet at the following addresses:

<http://www.biosecurity.govt.nz/animal-welfare/naeac/papers/guide-for-animals-use.pdf>

<http://www.biosecurity.govt.nz/animal-welfare/naeac/papers/culture-of-care.pdf>

<http://www.biosecurity.govt.nz/animal-welfare/naeac/papers/naeaccec.pdf>

or by contacting:

Animal Welfare Group, MAF Biosecurity New Zealand

P O Box 2526, Wellington, New Zealand

Phone: 04-8940100, fax: 04-8940747, email: naeac@maf.govt.nz

APPENDIX 4

Accredited Reviewers

Reviewers accredited pursuant to section 109 of the Animal Welfare Act 1999

¹Dr Norman R BURTON

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¹ Dr Burton wishes to undertake reviews for professional development reasons. He will pay for his own travel to New Zealand.

APPENDIX 5

Definitions from the Animal Welfare Act 1999

Excerpt from section 2(1)

“Animal” –

- (a) Means any live member of the animal kingdom that is –
 - (i) A mammal; or
 - (ii) A bird; or
 - (iii) A reptile; or
 - (iv) An amphibian; or
 - (v) A fish (bony or cartilaginous); or
 - (vi) Any octopus, squid, crab, lobster, or crayfish (including freshwater crayfish); or
 - (vii) Any other member of the animal kingdom which is declared from time to time by the Governor-General, by Order in Council, to be an animal for the purposes of this Act; and
- (b) Includes any mammalian foetus, or any avian or reptilian pre-hatched young, that is in the last half of its period of gestation or development; and
- (c) Includes any marsupial pouch young; but
- (d) Does not include –
 - (i) A human being; or
 - (ii) Except as provided in paragraph (b) or paragraph (c) of this definition, any animal in the pre-natal, pre-hatched, larval, or other such developmental stage.

Definition of “manipulation” (section 3)

- (1) In this Act, unless the context otherwise requires, the term “manipulation”, in relation to an animal, means, subject to subsections (2) and (3), interfering with the normal physiological, behavioural, or anatomical integrity of the animal by deliberately –
 - (a) Subjecting it to a procedure which is unusual or abnormal when compared with that to which animals of that type would be subjected under normal management or practice and which involves –
 - (i) Exposing the animal to any parasite, micro-organism, drug, chemical, biological product, radiation, electrical stimulation, or environmental condition; or
 - (ii) Enforced activity, restraint, nutrition, or surgical intervention; or
 - (b) Depriving the animal of usual care; –and “manipulating” has a corresponding meaning.
- (2) The term defined by subsection (1) does not include –
 - (a) Any therapy or prophylaxis necessary or desirable for the welfare of an animal; or
 - (b) The killing of an animal by the owner or person in charge as the end point of research, testing, or teaching if the animal is killed in such a manner that the animal does not suffer unreasonable or unnecessary pain or distress; or
 - (c) The killing of an animal in order to undertake research, testing, or teaching on the dead animal or on prenatal or developmental tissue of the animal if the animal is killed in such a manner that the animal does not suffer unreasonable or unnecessary pain or distress; or
 - (d) The hunting or killing of any animal in a wild state by a method that is not an experimental method; or
 - (e) Any procedure that the Minister declares, under subsection (3), not to be a manipulation for the purposes of this Act.
- (3) The Minister may from time to time, after consultation with the National Animal Welfare Advisory Committee and the National Animal Ethics Advisory Committee, declare any procedure, by notice in the *Gazette*, not to be a manipulation for the purposes of this Act.
- (4) The Minister must, in deciding whether to publish a notice under subsection (3) in relation to a procedure, have regard to the following matters:
 - (a) The nature of the procedure; and
 - (b) The effect that the performance of the procedure will or may have on an animal’s welfare; and
 - (c) The purpose of the procedure; and
 - (d) The extent (if any) to which the procedure is established in New Zealand in relation to the production of animals or commercial products; and
 - (e) The likelihood of managing the procedure adequately by the use of codes of welfare or other instruments under this Act or any other Act; and
 - (f) The consultation conducted under subsection (3); and
 - (g) Any other matter considered relevant by the Minister.

Definition of “research, testing, and teaching” (section 5)

- (1) In this Act, unless the context otherwise requires, the term “research, testing, and teaching” means, subject to subsections (2) to (4), –

- (a) Any work (being investigative work or experimental work or diagnostic work or toxicity testing work or potency testing work) that involves the manipulation of any animal; or
 - (b) Any work that –
 - (i) Is carried out for the purpose of producing antisera or other biological products; and
 - (ii) Involves the manipulation of any animal; or
 - (c) Any teaching that involves the manipulation of any animal.
- (2) The term defined by subsection (1) does not include any manipulation that is carried out on any animal that is in the immediate care of a veterinarian, if –
- (a) The veterinarian believes on reasonable grounds that the manipulation will not cause the animal unreasonable or unnecessary pain or distress, or lasting harm; and
 - (b) The manipulation is –
 - (i) For clinical purposes in order to diagnose any disease in the animal or any associated animal; or
 - (ii) For clinical purposes in order to assess the effectiveness of a proposed treatment regime for the animal or any associated animal; or
 - (iii) For the purposes of assessing the characteristics of the animal with a view to maximising the productivity of the animal or any associated animal.
- (3) The term defined by subsection (1) does not include any manipulation of an animal –
- (a) Which is carried out with the principal objective of-
 - (i) Assisting the breeding, marking, capturing, translocation, or trapping of animals of that type; or
 - (ii) Weighing or taking measurements from the animal; or
 - (iii) Assessing the characteristics of animals of that type; and
 - (b) Which is a manipulation of an animal that –
 - (i) Is carried out routinely; or
 - (ii) Is a minor modification of a manipulation that is carried out routinely; and
 - (c) Which is used to fulfill responsibilities and functions under –
 - (i) The Conservation Act 1987; or
 - (ii) Any Act listed in the First Schedule of the Conservation Act 1987; or
 - (iii) Any other Act or regulations under which the Minister of Conservation or the Director-General of Conservation or the Department of Conservation has responsibilities or functions; or
 - (iv) The Fisheries Act 1996.
- (4) For the purposes of this section, an animal is in the immediate care of a veterinarian if the veterinarian –
- (a) Has accepted responsibility for the health and welfare of the animal; and
 - (b) Is providing the animal with direct and continuing care.
- (5) In the other sections of this Act (except section 57(a)(i)), –
- (a) The term “research” means any research work that comes within the term defined by subsection (1); and
 - (b) The term “testing” means any testing work that comes within the term defined by subsection (1); and
 - (c) The term “teaching” means any teaching that comes within the term defined by subsection (1).

APPENDIX 6

Animal Usage Report: Five-year summary of the number of animals used and the percentage that died or were euthanased (by species)

	2006		2005		2004		2003		2002	
	No. used	% died or euthanased	No. used	% died or euthanased	No. used	% died or euthanased	No. used	% died or euthanased	No. used	% died or euthanased
Amphibians	968	10	104	40	10,591	88	1,571	99	409	8
Birds	59,404	18	37,000	12	9,611	75	6,108	55	17,393	22
Cats	757	2	765	12	440	0	459	0.9	373	22
Cattle	41,748	2	28,656	1	46,014	1	53,706	1	49,432	3
Deer	8,062	2	2,020	0	3,132	8	5,039	6	4,413	4
Dogs	682	1	697	28	497	3	873	16	231	23
Fish	8,804	64	11,593	29	12,365	47	71,993	15	44,992	54
Goats	900	14	717	10	458	0	1,259	9	553	15
Guinea pigs	3,041	97	2,392	98	1,814	97	3,138	97	2,912	97
Hamsters	-	-	-	-	-	-	8	100	354	100
Horses / donkeys	390	1	609	2	800	2	951	7	525	0.9
Marine mammals	156	0	1,870	0	3,178	0	5,385	0	628	0
Mice	59,936	82	67,699	98	73,413	91	82,912	99	73,100	98
Pigs	807	28	577	95	365	79	219	67	606	51
Possums	5,009	50	4,478	96	1,627	87	7,963	34	2,013	92
Rabbits	1,702	97	1,575	95	1,123	95	2,324	95	2,108	97
Rats	17,208	95	17,804	97	17,200	94	19,463	98	17,616	98
Reptiles	12,118	3	3,231	3	1,576	0.6	363	4	6,091	0.5
Sheep	94,532	8	79,883	4	60,143	12	51,063	21	34,811	12
Misc. species	2,265	18	1,544	31	1,784	20	6,114	76	5,124	73
Total no. used	318,489		263,214		246,122		320,911		263,684	
Yearly %		31%		40%		48%		44%		51%

APPENDIX 7

Animal Usage Report: Five-year summary of animal usage (by organisation type)

Group	Year	Rats, mice guinea pigs, rabbits	Sheep, cattle, goats	Other domestic animals	Birds	Fish	All other species	Total
Universities	2002	25,887	10,156	1,103	10,601	27,812	2,247	77,806
	2003	46,266	24,944	4,596	3,188	61,600	6,554	147,148
	2004	37,815	11,014	3,090	2,034	6,735	13,038	73,726
	2005	34,229	20,775	3,377	34,771	8,052	5,018	106,222
	2006	29,484	26,533	7,624	4,938	7,545	9,501	85,625
Commercial organisations	2002	44,104	48,816	676	165	-	79	93,840
	2003	29,151	51,071	700	2	-	212	81,136
	2004	24,755	63,689	372	3	-	257	89,076
	2005	39,436	59,021	682	2	-	153	99,294
	2006	32,617	48,346	1,121	26	-	272	82,382
Crown research institutes	2002	25,697	25,259	4,037	3,168	16,624	6,707	81,492
	2003	24,988	29,668	1,731	692	10,243	9,194	76,516
	2004	19,203	31,582	1,432	578	5,504	2,273	60,572
	2005	15,477	29,186	202	2,096	2,248	5,300	54,509
	2006	14,822	60,507	1,180	45,672	1,019	9,476	132,676
Polytechnics	2002	128	330	263	156	156	20	1,053
	2003	231	343	495	209	150	8	1,436
	2004	139	325	324	24	126	5	943
	2005	107	232	396	44	1,293	9	2,081
	2006	184	501	728	117	240	12	1,782
Government departments	2002	228	42	53	3,303	400	5,203	9,229
	2003	503	-	12	1,995	-	5,424	7,934
	2004	140	-	-	6,950	-	3,174	10,264
	2005	-	-	-	18	-	741	759
	2006	-	664	-	8,618	-	617	9,899
Other	2002	30	193	16	-	-	9	248
	2003	6,686	2	-	22	-	4	6,714
	2004	11,478	5	7	22	-	7	11,519
	2005	148	4	9	19	-	6	186
	2006	4,644	389	-	18	-	29	5,080
Schools	2002	16	-	-	-	-	-	16
	2003	20	-	-	-	-	-	20
	2004	20	-	-	-	-	2	22
	2005	73	38	2	50	-	-	163
	2006	136	240	45	15	-	609	1,045
TOTAL	2002	96,090	84,796	6,148	17,393	44,992	14,265	263,684
	2003	107,845	106,028	7,541	6,108	71,993	21,396	320,911
	2004	93,550	106,615	5,225	9,611	12,365	18,756	246,122
	2005	89,470	109,256	4,668	37,000	11,593	11,227	263,214
	2006	81,887	137,180	10,698	59,404	8,804	20,516	318,489

APPENDIX 8

“Purpose of Manipulation” Categories Definition Guidelines for Animal Use Statistics

Category	Definition
Animal husbandry	Animal husbandry, including reproduction, nutrition, growth and production.
Basic biological research	Basic biological research.
Development of alternatives	Work aimed at developing methods to replace or reduce the use of live animals in RTT.
Environmental management	Environmental management, including the control of animal pests.
Medical research	Medical research involving animals, but not research on human subjects.
Production of biological agents	Animals used for raising antibodies or the supply of blood products.
Species conservation	Work directed towards species conservation. The species to be conserved may or may not be directly involved, e.g. nutrition studies using more common species can benefit an endangered species.
Teaching	Animals used for teaching or instruction, at any level.
Testing	Animals used for public health testing or to ensure the safety, efficacy or quality of products to meet regulatory requirements for human or animal products, either in New Zealand or internationally.
Veterinary research	Veterinary research, particularly that aimed at improving the health and welfare of production and companion animals.
Other	Manipulations for purposes other than those listed above.

APPENDIX 9

Animal Usage Report: summary of the species used (by manipulation grading)

Species	No suffering	Little suffering	Moderate suffering	Severe suffering	Very severe suffering	Total
Amphibians	509	459				968
Birds	45,534	13,297	385	188		59,404
Cats	254	441	60	2		757
Cattle	7,386	33,419	577	360	6	41,748
Deer	447	7,609	6			8,062
Dogs	491	191				682
Fish	1,234	7,493	77			8,804
Goats	5	877	18			900
Guinea pigs	38	698	8	1,379	918	3,041
Horses / donkeys	50	325	15			390
Marine mammals	125	31				156
Mice	1,677	31,972	15,769	111	10,407	59,936
Pigs		807				807
Possums	974	2,444	518	1,072	1	5,009
Rabbits	29	1,653	20			1,702
Rats	1,373	9,384	5,045	1,329	77	17,208
Reptiles	982	10,532	601	3		12,118
Sheep	41,124	51,688	1,647	73		94,532
Misc. species	1,126	370	482	287		2,265
TOTAL	103,358	173,690	25,228	4,804	11,409	318,489