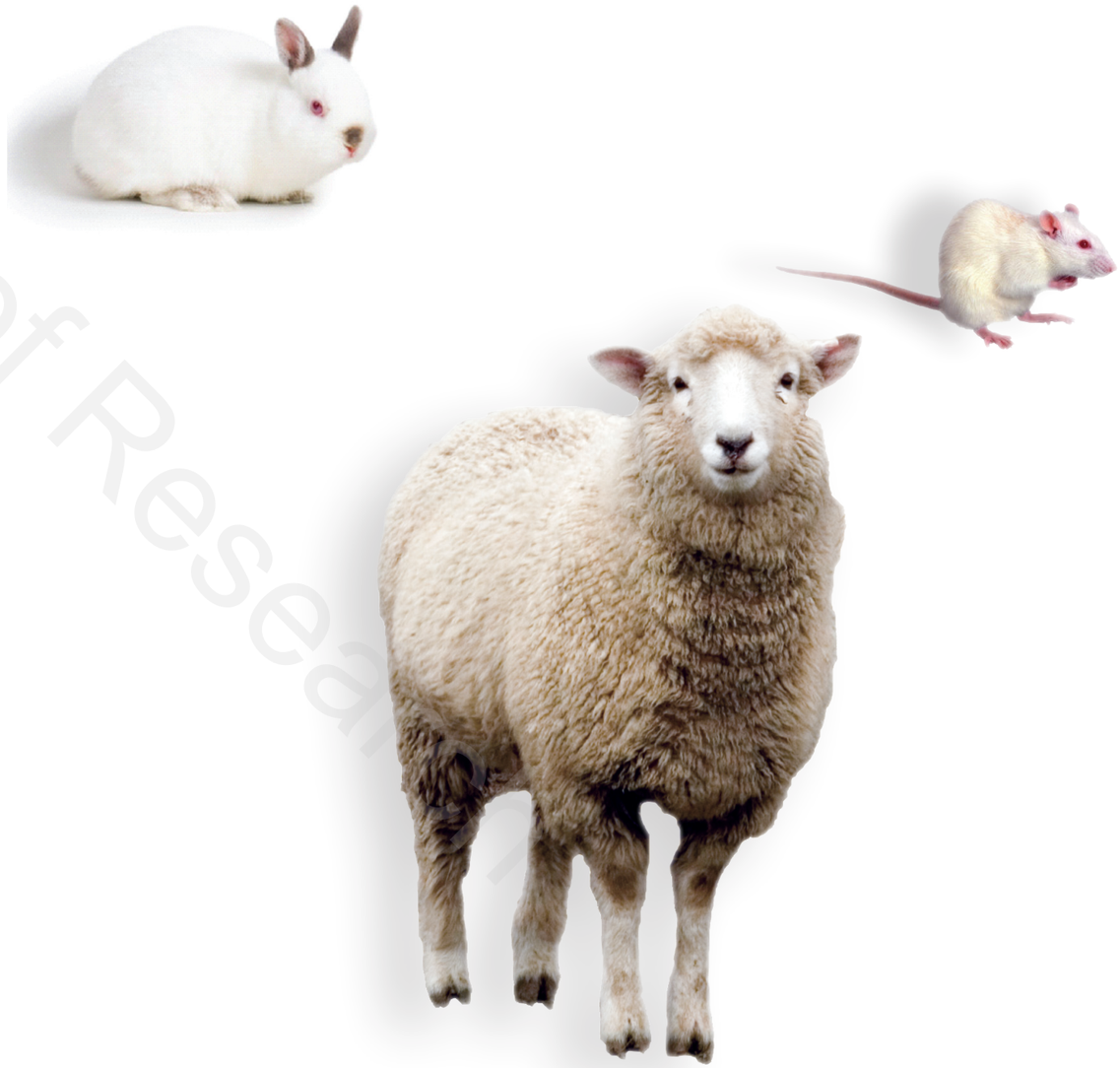
ANIMAL WELFARE

Animal use statistics

June 2013



Animal Welfare Standards
Ministry for Primary Industries
PO Box 2526
Wellington 6140

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Contents

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Background

This document has been prepared to assist those who are required to maintain records of animal manipulations and supply statistics to the Ministry for Primary Industries (MPI). It provides information on legal requirements and guidance on how to provide the animal use information required by MPI.

This revised edition supersedes the November 2010 and all earlier editions.

Legal requirements

Who must keep records

Every person/organisation who/that:

- has an approved code of ethical conduct; or
- has an arrangement to use a code holder's code and animal ethics committee; or
- has the Minister for Primary Industries approval to carry out animal manipulations in the national interest; or
- has the approval of the Director-General of MPI to carry out research on non-human hominids;

must maintain records.

Retention of records

The records that must be kept are set out in the Animal Welfare (Records and Statistics) Regulations 1999. These records must be kept for a period of five years after the end of the year to which they relate. (For example, all records relating to the manipulations which took place in 2008 must be kept until at least 31 December 2013.)

Annual returns

Code holders are required to submit to MPI an annual return on or before 28 February each year. This must be in writing and must detail records kept.

Code holders must provide the details of records kept for a project of, or up to, three years' duration, in the annual return made in the year following the year that the project ends. Code holders must provide the details of records kept for a project of more than three years' duration in the annual return made in the year following every third year of the project and, if the term of the project is not divisible by multiples of three years, again in the year following the year that the project ends.

Additional requests

In addition, the Director-General of MPI or any inspector appointed under the Animal Welfare Act 1999 may require code holders to supply records or details from them within seven days.

Offences and penalties

It is an offence to:

- wilfully fail to keep the required records;
- wilfully fail to retain the required records for the five-year period;
- fail, without reasonable excuse, to make a return on time;
- make a return that is, to the person's knowledge, false or misleading;
- fail, without reasonable excuse, to comply with the Director-General's/an inspector's request;
- forward, in response to the Director-General's/an inspector's request, records/details that are false or misleading.

The maximum penalty for offences against the Animal Welfare (Records and Statistics) Regulations is $5000 for an individual and $25,000 for a body corporate.

Coverage

Records must be kept for all animals that are manipulated for the purposes of research, testing or teaching.

The terms "animal", "manipulation" and "research, testing and teaching" are all defined in the Animal Welfare Act 1999. These definitions are repeated in appendix 2.

The killing of an animal to undertake research, testing and teaching on the dead animal, its tissues or on prenatal developmental tissue does not constitute a manipulation if the animal is killed humanely.

Organisations/animal ethics committees (AECs) may have internal rules requiring ethical approval of such animal use but statistics for such usage should not be included in the annual return to MPI.

Publication of data

The statistics supplied to MPI are collated prior to being passed to the National Animal Ethics Advisory Committee (NAEAC) for publication in its annual report. The annual report is distributed widely both within New Zealand and internationally. The animal use statistics are often the subject of media interest when the report is released.

Institutional returns to MPI

The form supplied by MPI should be photocopied as necessary, completed and signed. Submission of returns, including nil returns, by telephone is not acceptable. Please note that there should be one animal type per page and one page per animal type except when animals are reported in categories D or E. In this situation, please report animals in categories D or E on a separate sheet e.g. if mice are to be reported in all five impact categories, there would be two sheets for mice, one for categories A, B and C and one for D and E. The purpose of this is to allow easier identification of such things as the types of research, testing or teaching such animals have been involved in.

Each institution (either a code holder or a parented organisation) is responsible for its own returns. If parented organisations choose not to submit their own returns, but to have these submitted by their parenting organisation on their behalf, such returns must be clearly and separately identified.

Guidelines for selecting appropriate categories

Please see appendix 1 for an example of the animal manipulation statistics form which includes the Box references explained below.

Name/Institution:

Most codes of ethical conduct or arrangements to use a code are held by organisations, so the organisation's full name should be entered here. If the arrangement is for an individual, the individual's name should be entered.

Box 1: Animal type

The list of types to be used, together with the appropriate code, appears on page 14. Use of the codes is not obligatory. Please note that while certain types of animals may be grouped together on one page (eg all marine mammals or all reptiles), submitters must be able to supply details of the species involved if requested.

Box 2: Source of animals

Select which category within the box describes the animals you used.

Breeding unit
An institutional unit dedicated to breeding animals for manipulation

Commercial
Obtained from a commercial supplier of animals

Farm
Farm animals obtained from a farm; the farm may be a commercial unit or belong to the institution. Animals such as a pet which happens to live on a farm or wild animals caught on farmland should not be included in this category.

Born during project
Primarily intended for offspring whose birth is part of the project, e.g. lambing or hatching studies

Captured
Captured in the wild

Imported
Imported into New Zealand from an overseas source

Public sources
Public donations, animals obtained from a pound, a pet shop or other public sources. This includes privately owned pets which are 'borrowed' for the duration of the exercise (eg veterinary nurse training)

Box 3: Status of animals

Select which category within the box best describes the status of the animals you used.

Normal/Conventional
Normal, healthy animals

SPF/Germfree
Animals reared under conditions in which the presence of disease agents (pathogens) has been controlled, e.g. "Specific Pathogen-Free" (SPF) animals, nematode parasite-free animals, gnotobiotic animals

Diseased
Animals afflicted with a naturally occurring disease, the focus of study usually being the cause, effects, cure or prevention of the disease

Transgenic/Chimera
Animals genetically modified by molecular genetic methods

Protected species
A permit is required for use of protected species; give your permit number (on back of form). If you have queries about protected and endangered species, consult your local Department of Conservation office

Unborn/Prehatched
Mammalian foetus in the last half of gestation or prehatched avian or reptilian young in last half of development or marsupial pouch young

Other
Categories not covered above should be included here

Box 4: Purpose

Main reasons for manipulation/use – select the category which best suits the purpose of the manipulation (one category only).

Teaching
Animals used for teaching or instruction, at any level

Species conservation
Work directed towards species conservation: the species to be conserved may or may not be directly involved, e.g. nutritional studies using a more common species can benefit an endangered species

Environmental management
Environmental management including the control of animal pests and research into methods of reducing production of greenhouse gases

Animal husbandry
Animal husbandry, including reproduction, nutrition, growth, production

Basic biological research
Basic biological research

Medical research
Research aimed at improving the health and welfare of humans, but not research on human subjects

Veterinary research
Research aimed at improving the health and welfare of production and companion animals

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

Production of biological agents
Animals used for raising antibodies or for the supply of blood products

Development of alternatives
Work aimed at developing methods to replace or reduce the use of live animals in research, testing and teaching

Other
Manipulations for purposes other than those listed above

Box 5: Re-use of animals

The objective is to indicate animals which are used in a single project, as opposed to animals used in more than one project, that is, recycled from one project into another project.

To summarise:
- No prior use – Used in one project only.
- Previously used – Recycled from one project to another.

Box 6: Grading of manipulations

The purpose of this is to provide an overall estimate of the impact or invasiveness of each animal use by selecting the appropriate grade. The grades must reflect the summed impacts of both the initial state of the animal and the induced effect of the experimental procedure, not the induced effect alone. The following should be taken into account.

The examples below cover, for each level of impact, the five domains of potential animal welfare compromise introduced by Mellor and Reid in 1994[1]. Impacts on animals within any one experiment may come from more than one domain. These examples are not exhaustive or definitive, but are a guide only. It should also be noted that, in carrying out a cost-benefit analysis, it may be decided that the impact of a procedure on the animal is so great that it should not proceed, no matter what the potential benefit is. Researchers and AECs should use their knowledge and judgement in determining the impact of procedures on animals.

Grading the manipulation(s) clearly requires a value judgement to be made by the applicant. This is verified subsequently (or amended) by the AEC. The experience of the investigator, and the quality of the environment in which the manipulation is carried out may alter the grading that is selected.

The grading provided in the annual statistics should reflect the actual impact of the manipulation on an animal rather than that proposed prior to the experiment i.e. it should be assessed at the end of each project for each animal. The grades should be applied to individual animals, or to groups of animals receiving different treatments, within an experiment rather than to an experiment as a whole.

The National Animal Ethics Advisory Committee understands that some inconsistencies may occur when judgements are made on the impacts of procedures on animals; this will not seriously distort the overall picture. It is expected that an honest assessment is made.

Grade A – "No impact or virtually no impact"

Examples:

- **Mental state:** Field observations of grazing behaviour on farms, or benign handling of tame and trained animals which are familiar with all personnel and procedures and with the place where the procedures are conducted.
- **Food/water:** Animals kept outdoors eating their usual food in appropriate amounts; grazing trials on treated pastures; offering supplements to naturally available food; provision of complete, balanced rations to meet all nutritional requirements of animals maintained indoors.
- **Environmental challenge:** Exposure to ambient conditions which are within the thermoneutral range; reduced barometric pressures which do not cause increases in red blood cell production.
- **Disease/injury/functional impairment:** Studies of healthy uninjured animals which are kept in physical conditions which do not themselves lead to injuries such as lameness or compression sores; studies to establish normal characteristics of healthy animals.
- **Behaviour:** Studies of wild or undomesticated animals in their natural habitats; field studies of domesticated animals.

Grade B – "Little impact"

Manipulations of minor impact and short duration

Examples:

- **Mental state:** Experiments on completely anaesthetised animals which do not regain consciousness; simple venipuncture or venisection; injection of non-toxic substances; skin tests which cause low-level irritation without ulceration/erosion; feeding trained animals by orogastric tube; movement of

2 Mellor D, Reid CSW. Concepts of animal well-being and predicting the impact of procedures on experimental animals. In *Improving the well-being of animals in the research environment* (pp 3-18). Sydney, ANZCCART, 1994.

free-range domesticated animals to unfamiliar housing; minor restrictions of water and/or feed intake beyond the normal period of satiation.

- **Food/water:** Water priming for kidney function tests; short-term overall food intake restrictions or excesses which are within usual tolerance levels for the species; short-term changes in dietary composition which cause no clinical signs of deficiency or toxicity, but which would cause such symptoms in the longer term.
- **Environmental challenge:** Exposure to levels of cold or heat which are outside the thermoneutral range, or barometric pressures which increase red blood cell production, but which remain within the capacity of the animals to adapt and do not lead to debility in the long term.
- **Disease/injury/functional impairment:** Studies of vaccines using killed pathogens; tuberculosis tests; induction of mild fever without other debilitating effects; induction of subclinical parasitism; healing of minor superficial incisions, cuts or wounds; minor surgical and/or pharmacological modification of homeostatic capacity (e.g. creation of non-obstructive gut fistulae; splenectomy; endocrine gland removal with complete and permanent hormone replacement therapy); physical conditions which cause transient lameness of low intensity, mild compression sores or abrasions.
- **Behaviour:** Mild and short-term physical restraint; keeping free-range domesticated animals in a yard; movement of free-range domesticated livestock to unfamiliar housing; operant conditioning with positive reinforcement in barren laboratory environments; benign preference tests in unnatural surroundings.

Grade C – "Moderate impact"

Includes manipulations of minor impact and long duration or moderate impact and short duration

Examples:

- **Mental state:** Recovery from major surgeries like thoracotomy, orthopaedic procedures, hysterectomy or gall bladder removal with effective use of analgesics; surgical procedures on conscious animals but with the use of local anaesthesia and systemic analgesic; movement of excitable free-range domesticated livestock to unfamiliar housing; short term capture, handling and restraint of wild or semi-domesticated animals that exhibit marked flight responses; moderate restrictions of water and/or feed intake beyond the normal period of satiation.
- **Food/water:** Simulation of usual overall intake restrictions often experienced by pregnant/lactating ruminants during cold winters or drought; dietary induction of milk fever in cattle; induction of mild deficiency or toxicity signs by feeding diets containing inadequate or excessive amounts of essential nutrients.
- **Environmental challenge:** Short-term exposure to severe extremes of cold or heat which would lead to collapse if prolonged.
- **Disease/injury/functional impairment:** Studies of live vaccines; induction of clinical parasitism; induction of mild reversible infectious diarrhoea; moderate surgical and/or pharmacological modification to homeostatic capacity (e.g. limited gut resection; endocrine gland removal with delayed or incomplete hormone replacement therapy); physical conditions which cause minor chronic lameness or other injuries; studies of the effects of infectious or toxic agents that cause rapid death without distress.
- **Behaviour:** Medium-term restrictions of instinctive behaviour; medium-term holding of ruminants in a metabolism crate; long-term restraint leading to the development of reversible stereotypies; changing social group composition.

Grade D – "High impact"

Includes manipulations of moderate impact and long duration or high impact and short duration

Examples:

- **Mental state:** Recovery from major surgery under anaesthesia without the use of postoperative analgesics; marked social or environmental deprivation; longer term capture, handling, restraint or housing, without the use of tranquilisers, of wild or semi-domesticated animals that exhibit marked flight responses.
- **Food/water:** Dietary induction of advanced pregnancy toxaemia in sheep or ketosis in dairy cattle; dietary induction of advanced signs of nutrient deficiency or excess; severe deleterious effects of dietary toxins; severe restrictions of water and/or feed intake beyond the normal period of satiation.
- **Environmental challenge:** Prolonged exposure to severe cold or heat which would lead to failure of thermoregulation and collapse, but the exposure is terminated just before those outcomes.
- **Disease/injury/functional impairment:** Studies of severe facial eczema; induction of severe diarrhoea or severe infectious pneumonia; protracted or irreversible pharmacological modification of homeostatic capacity (e.g. chemical induction of diabetes mellitus without replacement therapy); marked surgical modification of homeostatic capacity (e.g. extensive gut resection; cutting of sensory or motor nerves serving large areas of the body from which no self-mutilation injury results; precise lesioning of limited areas of the brain but with intervention before collapse); physical conditions which cause moderate chronic lameness or other injuries; studies of the effects of infectious and toxic agents which cause either a protracted death with minor distress or a rapid death with moderate distress.
- **Behaviour:** Application of marked and repeated noxious stimuli from which escape is impossible; prolonged periods (several hours or more) of close physical restraint; marked alterations to the perceptual or motor functions of animals to test consequent behaviour.

Grade E – "Very high impact"

Manipulations of high impact and long duration

Examples:

- **Mental state:** Conducting major surgeries without the use of anaesthesia on control animals in assessing efficacy of analgesics; testing the efficacy of analgesics in animals with severe induced pain.
- **Food/water:** Experiments which cause animals to die from poisoning by toxins in the diet; protracted and severe restrictions on water and/or feed intake.
- **Environmental challenge:** Purposeful exposure of conscious animals to lethal extremes of cold, heat or barometric pressure which duplicate naturally occurring conditions.
- **Disease/injury/functional impairment:** Studies of methods for killing pest animals; cutting of sensory or motor nerves serving large areas of the body from which self-mutilation injury results; evaluation of vaccines where death is the measure of failure to protect; studies of the effects of infectious or toxic agents which cause either a protracted death with marked distress or a rapid death with severe distress.
- **Behaviour:** Application of marked and repeated extremely noxious stimuli from which escape is impossible; prolonged periods (several hours or more) of close physical restraint.

Box 7: Alive

This information records the fates of animals that survived the project. Select the category/categories.

Retained

Kept by the institution carrying out the research, testing and teaching

Returned
Returned to the original owner of the animals. This includes livestock used in trials which never actually left the farm and were "returned" to the control of the farmer at the end of the study and pets borrowed from pet shops or private owners

Released
Released to the wild (Note: it is an offence to return some pest species to the wild.)

Disposed of
Given or sold to others. This includes animals which are rehomed at the end of a study. It also includes animals sent to freezing works or slaughterhouses subsequent to the manipulation

Note – Where the "disposed of to others" category is used, code holders are required to record the name and address and number of animals delivered to that person. This information need not be submitted to MPI as a matter of routine but must be available if required.

Box 8: Dead

This information records the number of animals that died or were euthanased during the course of or after the project.

Box 9: Total Manipulated

Records the number of animals that were manipulated in the project. The animals in the "total alive" and "total dead" boxes must add up to the total manipulated.

Nil return

A nil annual return must be submitted in the following circumstances:
- if no animals were used at all; or
- where animals used are required to be reported in a later annual return (see Annual Returns section in Legal Requirements, page 3).

Under these circumstances, please tick the nil return box (and complete the signature and Official Information Act boxes). It is not necessary to complete a nil return form for each type of animal.

Official Information Act

MPI is subject to the Official Information Act 1982, as are some code holders in their own right.

Please indicate (by ticking one of the boxes) whether or not you agree to your return being released if MPI receives a request for the information.

If you indicate that you have no objection to release, the information will be released if a request is received, and you will be informed of the release.

If you indicate that you have an objection to the release of the information, you will be consulted about the request and will need to provide reasons for wanting the information withheld. If your organisation is subject to the Official Information Act the request can be transferred to your organisation in accordance with the provisions of the Act.

Appendix 1: Sample Form for Annual Return to MPI

ANIMAL MANIPULATION FIGURES: **Period: 2013**

ONE SPECIES PER SHEET PLEASE

Name of Institution:

1. Animal Type:

2. Source of animals:	**No. Used**
Breeding unit	
Commercial	
Farm	
Born during project	
Captured	
Imported into New Zealand	
Public sources	
Total	

3. Status of animals:	**No. Used**
Normal/conventional	
SPF/germ free	
Diseased	
Transgenic/chimera	
Protected species	
Unborn/prehatched	
Other	

4. Purpose:	**No. Used**
Teaching	
Species conservation	
Environmental management	
Animal husbandry	
Basic biological research	
Medical research	
Veterinary research	
Testing	
Production of biological agents	
Development of alternatives	
Other	

5. Re-use:	**No. Used**
No prior use	
Previously used	

6. Grading:	**New**	**No. Used**
No impact	A	
Little impact	B	
Moderate impact	C	
High impact	D	
Very high impact	E	

7. Alive:	**No. Used**
Retained [by your institution]	
Returned [to owner]	
Released [to the wild]	
Disposed of [e.g. to works or rehomed]	
Total Alive	

8. Dead:	**No. Used**
Total Dead	

9. Total manipulated/used:	

Nil Return:	

Completed by: please print clearly
Designation:
Signature:

We agree that these statistics may be released if requested under the Official Information Act.	Yes	No

Box 1 Animal Type Codes:

No distinction on the basis of sex, age, breed, strain or physiological condition.

Animal Type	Code	Animal
Rodents	1 a	Mice
	1 b	Rats
	1 c	Guinea pigs
	1 d	Hamsters
Rabbits	1 e	Rabbits
Farm Animals	1 f	Sheep
	1 g	Cattle
	1 h	Goats
	1 j	Deer
	1 k	Pigs
Other Domestic	1 m	Horses
Mammals	1 n	Dogs
	1 o	Cats
Birds	1 p	Fowls, chickens
	1 q	Pigeons
	1 r	Other birds
Miscellaneous	1 s	Marine Mammals
	1 t	Possums
	1 u	Reptiles
	1 w	Amphibia
	1 x	Fish
	1z	Octopus, squid, crabs, lobster, crayfish
Other	1 y	Other species (*name)

Appendix 2: Legal Definitions from the Animal Welfare Act 1999

Excerpt from section 2(1) – Animal

"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:

Section 3 Definition of "manipulation"-

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.

Section 5 Definition of "research, testing, and teaching"-

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).