Home Office

Statistics of Scientific Procedures on Living Animals Great Britain 2006

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HOME OFFICE

Statistics of Scientific Procedures on Living Animals

GREAT BRITAIN
2006

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by Command of Her Majesty
July 2007

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CONTENTS

Where a Table is not listed see the Introductory Notes (page 4) for further details. Supplementary tables can be found on the website at: http://www.homeoffice.gov.uk/rds/scientific1.html

STATISTICS OF SCIENTIFIC PROCEDURES ON LIVING ANIMALS GREAT BRITAIN 2006

Note: The Appendices are now available, along with a comprehensive set of Tables, as separate files on the website: http://www.homeoffice.gov.uk/rds/scientific1.html

INTRODUCTORY NOTES

1. The statistics in this publication relate to scientific procedures performed on living animals subject to the provisions of the Animals (Scientific Procedures) Act 1986, during the year 2006 in accordance with section 21(7) of the Act. The system of control under the 1986 Act is explained in detail in Appendix A. Under this Act any scientific procedure carried out on any living vertebrate animal, or one species of octopus *(Octopus vulgaris)*, which is likely to cause that animal pain, suffering, distress or lasting harm is a regulated procedure requiring licence authority. Recognised veterinary, agricultural or animal husbandry practice and the administration of medicines under an Animal Test Exemption granted under the Medicines Act 1968 are excluded from the controls of the 1986 Act. Statistics of scientific procedures on living animals are annually collected, and published annual by the Home Office.

Collection procedures

2. The statistics are compiled from returns, submitted by project licence holders at the end of each year, or on the termination of the licence when this occurs during the year. A simplified copy of the form and its instructions can be found in Appendix B. The form provides details of the species of animal used, the main purpose of the procedure and other details as described in Appendix C. Each procedure (which may consist of several stages) for a given purpose on an animal is counted as one returnable procedure for the year in which it commenced. A study involving a procedure using a number of animals is counted once for each animal. Where an animal which has recovered fully from a completed procedure is used again for a further procedure it is counted as a separate procedure, but the animal itself is not re-counted. The circumstances in which this re-use of an animal is permitted are limited.

3. Licence holders are required, as a condition of their licence, to submit a return even if no work has been undertaken (nil returns). A record is kept of all licensees from whom returns have been received. Those who fail to do so are reminded of their obligation under the Animals (Scientific Procedures) Act 1986.

4. To ensure that the published data are as complete as possible the Home Office will not publish the statistics unless the number of missing returns represents less than 0.5 percent of all the returns expected. In 2006, all forms were returned.

5. Details of the work of individual project licence holders are not identifiable in this publication. Where a further breakdown of the 'other' species categories are not given in the commentary this is to safeguard the confidentiality of the establishment and the licence holder.

Accuracy

6. Verification and subsequent publication of these statistics are done by the Science and Research Group (SRG) of the Home Office.

7. Project licence holders classify their procedures according to a standard coding list, see Appendix B. The current classification system dates from 1995, and was modified in 1999 in those areas relating to source of animals, production and breeding, toxicology and legislation. During the collection and verification process, forms that have been incorrectly coded are referred back to the licensees for correction

8. The Animals (Scientific Procedures) Inspectorate (ASPI) scrutinise the returns and output tables and provide advice to SRG. During this process, Inspectors may contact licensees to discuss and confirm coding, and inform SRG of any amendments that may be necessary.

PROCEDURES IN 2006

9. Additional information comparing the 2006 figures with the previous year has been provided on tables 1, 5 and 9. As a result, some of this information has been removed from the commentary to limit duplication in the report. For the purpose of the commentary most figures have been rounded to the nearest 100 procedures (or animals), in order to simplify the explanation; as such the figures referenced will not be identical to the figures in the tables.

Following a review of the published tables in the 2005 report, it was decided to re-number the tables back into a consecutive order. Where the number of the table has been changed, a note has been added to the table to tell readers the number of the table in previous publications.

INFORMATION ONLY AVAILABLE ON THE WEBSITE

A. PROJECT LICENCE HOLDERS AND DESIGNATED PLACES

10. Project licence holders have been classified according to the type of establishment, which was their main place of employment at the end of the year, although they could be licensed to carry out procedures at more than one place. Procedures are classified according to the type of establishment of the project licence holder reporting them. Details of the number of procedures conducted at each type of establishment can be found in Appendix A.

B. HISTORICAL AND TIME-SERIES TABLES

These tables are now only available on the website.

11. Tables 20–27 summarise some selected aspects of the annual statistics collected since the introduction of the Animals (Scientific Procedures) Act 1986 on 1 January 1987. For the reasons explained below, not all the tables refer to the same time period. Some of the historical tables only run from 1995 onwards, when the present system for collecting and presenting data was introduced.

12. Table 25 has replaced tobacco and alcohol safety data with data for pharmaceutical and other safety, but figures for year prior to 1995 are still shown because in this case data in the rest of the table are comparable.

Changes to publication

Since the 2005 report, some changes have been made to improve the contents and layout of this publication. This was done with the intention of making the report easier to comprehend and follow.

The Tables we have elected to publish now appear in colour, and the numbering has been revised to put the tables in consecutive order. In some cases, the tables in the published form are now a simplified version, compared with previous years. After considering the views of users it was felt to be more efficient to publish a simplified, easier to read version, and give users access to the tables online.

All the tables, in their historical format are available on the website. This facilitates access to comparable date.

It is hoped that these changes improve the report and if you wish to provide feedback please see Appendix D for contact details. The Home Office would welcome comments from users on how well this publication meets their needs, and will consider any suggestions for improving it in future years. Comments should be sent to:

Science and Research Group,
1st Floor, Seacole Block
Home Office,
2 Marsham Street,
LONDON SW1P 4DF
or email: publications.rds@homeoffice.gsi.gov.uk

MAIN POINTS

1. Just over 3.01 million scientific procedures were started in 2006, a rise of about 115,800 (4%) on 2005. The increased animal use was mainly due to increases in the use of mice and fish, whilst the use of all other species was broadly similar or less than in 2005. There was increased use of both of these species for breeding purposes. The use of mice increased also for fundamental research, and fish for studies on the protection of man, animals and the environment.

2. Mice, rats and other rodents were used in the majority of procedures; eighty-three percent of the total. Most of the remaining procedures used fish (9%), and birds (4%).

3. Dogs, cats, horses and non-human primates, afforded special protection by the Act, were collectively used in less than one percent of all procedures.

4. The number of procedures using non-human primates was 4,200 down by 450 (10%) from 2005, mainly due to a decrease in old-world primates. The number of animals used was 3,108.

5. Breeding procedures accounted for over a third (37%) of all the procedures conducted in 2006, for the production of harmful mutant and genetically modified animals. Mainly mice were used.

6. Around ninety-nine percent of procedures carried out on animals listed in Schedule 2 of the Act used animals acquired from designated sources in the United Kingdom.

7. Genetically normal animals were used in 1.65 million regulated procedures, similar to the 2005 figures. Their use represents fifty-five percent of all procedures for 2006, compared with fifty-seven percent in 2005 and eighty-four percent in 1995.

8. Species with harmful genetic mutations were used in 326,600 regulated procedures, representing eleven percent of all procedures for 2006. The majority of these procedures used rodents (88%); most of the remainder were fish and amphibians.

9. Genetically modified animals were used in 1.04 million regulated procedures representing thirty-four percent of all procedures for 2006, compared with thirty-three percent in 2005 and eight percent in 1995. The vast majority (95%) of these procedures used rodents, most of the remainder were fish and amphibians.

10. Around thirty-eight percent of all procedures used some form of anaesthesia to alleviate the severity of the interventions. For many of the remaining procedures the use of anaesthesia would have potentially increased the adverse effects of the procedure.

11. Non-toxicological procedures accounted for about eighty-six percent of the procedures started in 2006. This contrasts with seventy-five percent of such procedures in 1995. The main areas of use were for immunological studies, pharmaceutical research and development, anatomy, physiology and cancer research.

12. Procedures for toxicological purposes accounted for fourteen percent of all procedures started in 2006. This contrasts with twenty-five percent of such procedures in 1995. Since 1995 there has been a fall of thirty-eight percent. In 2006 the majority (74%) of procedures were for pharmacological safety and efficacy evaluation. Around eighty percent of toxicological procedures in 2006 used rodent species, while non-human primates were used in less than one percent. Of all the toxicological procedures conducted in 2006, eighty-six percent were performed to conform to legal or regulatory requirements.

COMMENTARY - OVERALL PICTURE

For information about changes made to the layout of this year's publication, please see the Introductory Notes on page 4.

For further definitions of some of the terms used in the commentary, please see Appendix C on the website. http://www.homeoffice.gov.uk/rds/scientific1.html

Procedures started in 2006

Just over three million scientific procedures started in 2006 (Table 1), a rise of about 115,800 (4%) than in 2005. There was a similar rise in the number of animals used (Table 1a), an increase of 133,800 (5%) on 2005. For a historical perspective, see Figure 1 below. The number of scientific procedures declined after 1976. This trend levelled out in the 1990s and in recent years the number of procedures has increased. Since 2000, the number of procedures has risen by ten percent. Breeding procedures account for most of this increase. For each project licence, the legislation requires that the minimum number of animals is used to achieve satisfactory results. The overall level of scientific procedures conducted is determined by a variety of factors, including the economic climate and global trends in scientific endeavour.

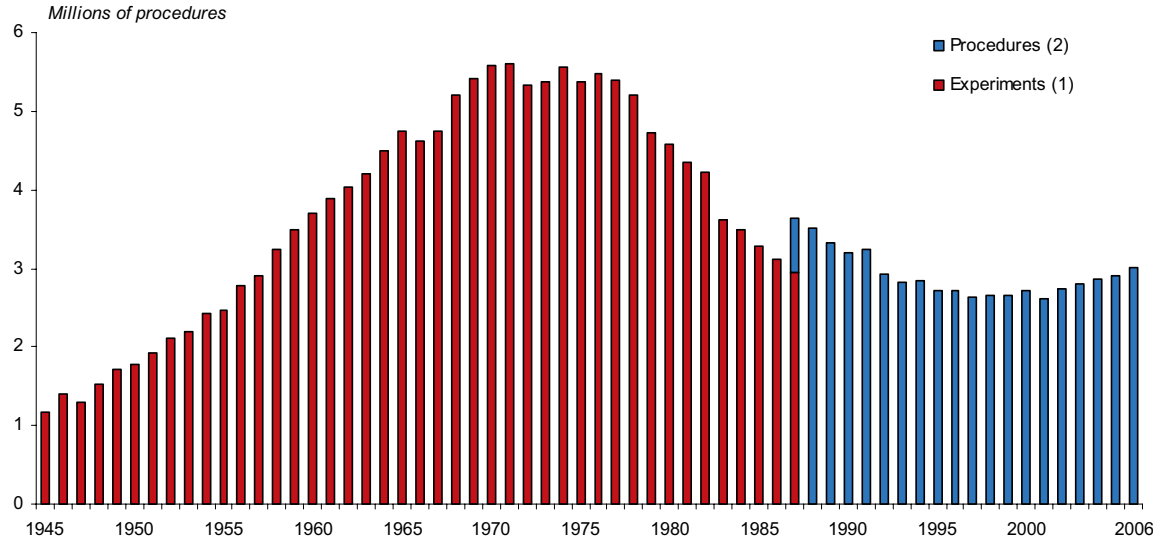


Figure 1: Experiments or procedures commenced each year, 1945-2006

(1) Experiments under the 1876 Act or scientific procedures under the 1986 Act

(2) The experiments included in 1987's figures also counted as procedures under the 1986 Act

Species used (Tables 1 and 1a, Figures 2, 3 and 4)
Table 1 gives details of individual species used for procedures, by primary purpose, reported in 2006. Points to note are:
Overall numbers

- Mice (69%), rats (13%), fish (9%), and birds (4%) were involved in the largest numbers of procedures. These proportions are broadly similar to recent years.
- Domestic fowl accounted for eighty-seven percent of all birds used for procedures.
- Dogs, cats and non-human primates were used in less than half of one percent of all procedures, with a combined total of 12,300. This was 500 lower than in 2005 and largely due to a fall in primate use, which decreased by 450 procedures (10%), mostly due to a decrease in old-world primates.

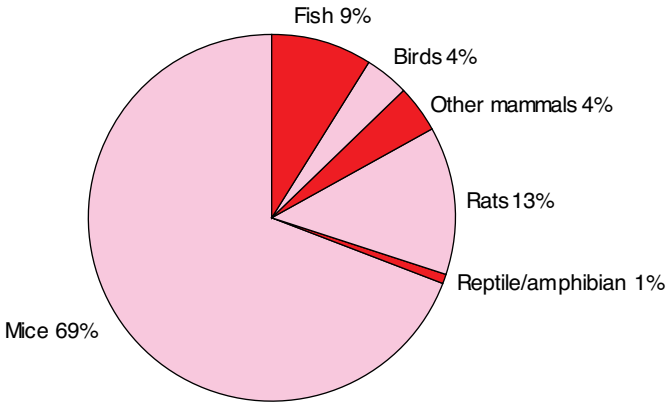


Figure 2: Procedures by species of animal, 2006 (Table 1)

Increases

There were increases in procedures using some species compared with 2005, notably:

- Mice, up 106,000 (5%)
- Fish up 41,200 (18%)
- Sheep up 7,000 (24%)
- Pigs up 1,100 (31%)

- The increased use of mice in 2006 was associated with fundamental biological research as well as applied studies for human medicine, dentistry and breeding.
- The increased use of fish was due to increases in all areas of research except for applied studies for veterinary medicine.
- The rise in sheep use was due to increases in fundamental biological research.
- The rise in pig use was mainly due to an increase in applied studies for human medicine.

Decreases

There were decreases in some species, notably procedures including:

- Rats fell by 18,400 (4%) due to decreases in all areas of research, except for applied studies for veterinary medicine.
- Cattle fell by 13,800 (72%) due to decreases in all fields but mainly in veterinary studies.
- Gerbils were down 3,900 (77%) across all areas of research.
- Macaques were down over 400 procedures (12%) due to decreases in all fields.
- 'Other dogs' were down 70 procedures (27%) across a number of areas.
- 'Other rodents' were down 1,200 (40%) due to a reduction in fundamental biological research.

Since 1995, there has been a divergence between the number of mice and rats used for scientific procedures, as Figure 3 below shows. The increase in the use of mice is due to the rise in genetically modified mice.

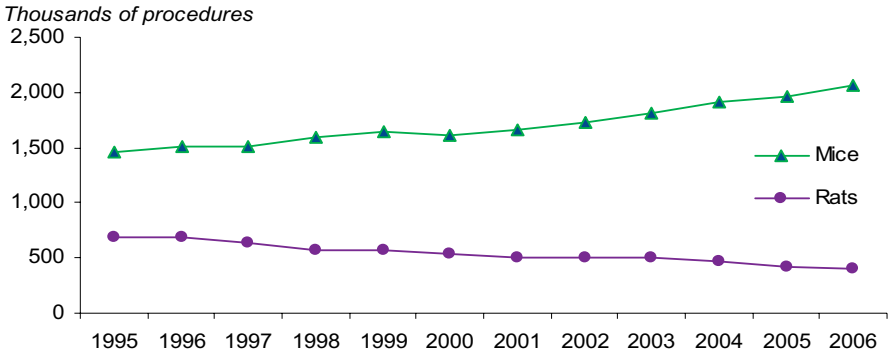


Figure 3: Procedures using mice and rats, 1995-2006

Other category use

- The 'other carnivore' category included foxes, badgers, seals and several species of mustelids, used for research relevant to those species.
- The 'other mammals' category included bats, hares and various types of shrew.

Primate use

- Figure 4 below shows the changes in use of old-world and new-world primates for procedures since 1995
- New-world primate use decreased from 2005 by thirteen procedures, part of a downward trend since 1999.
- Old-world primate use decreased by about 440 (12%). These figures have fluctuated over the last few years, as shown by Figure 4.
- Many primates were used more than once since some of the procedures they are involved in only have a mild effect (such as taking blood samples), for which anaesthesia is not required. In 2006, approximately 700 primates were re-used for the first time.

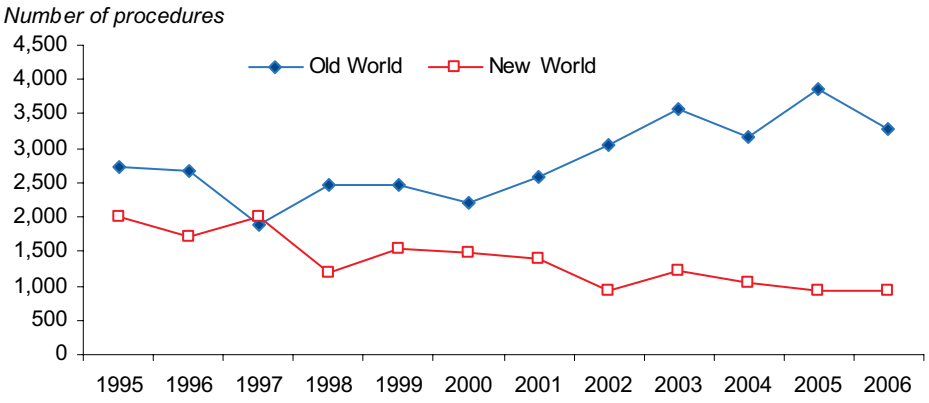


Figure 4: Procedures using non-human primates, 1995-2006

Species on which no procedures were started in 2006

No procedures were performed on greyhounds, prosimians and a number of primate species. No great apes have been used since the current legislation (the 1986 Act) was introduced in 1987.

Primary purpose (Tables 1 and 1a, Figure 5)

The largest single category of changes was the use of animals solely for procedures for breeding harmful mutant and genetically modified animals. Breeding accounted for 1.1 million procedures (37%) in 2006, see Figure 5. These procedures were up 74,500 (7%) from 2005 as part of a continuing trend. The total number of procedures for other purposes has been consistent since 2002.

Increases

- Fundamental biological research accounted for 962,800 (32%) procedures, up 23,100 (2%). The number of procedures used in this field has fluctuated for a number of years.
- Applied studies for human medicine and dentistry accounted for 634,300 (21%) procedures, up 9,400 (2%) from 2005.
- Protection of man, animals and the environment accounted for 121,500 (4%) procedures, up 17,700 (17%) from 2005.
- Direct diagnosis accounted for 49,500 (2%) procedures, up 7,700 (19%) from 2005.

Decreases

- Applied studies in veterinary medicine accounted for 139,400 procedures (5%), down 16,800 (11%) on 2005.

Other purposes

- The 'other purposes' reported in Tables 1 and 1a (Education, Training and Forensic Inquires) recorded small numbers in line with existing trends.

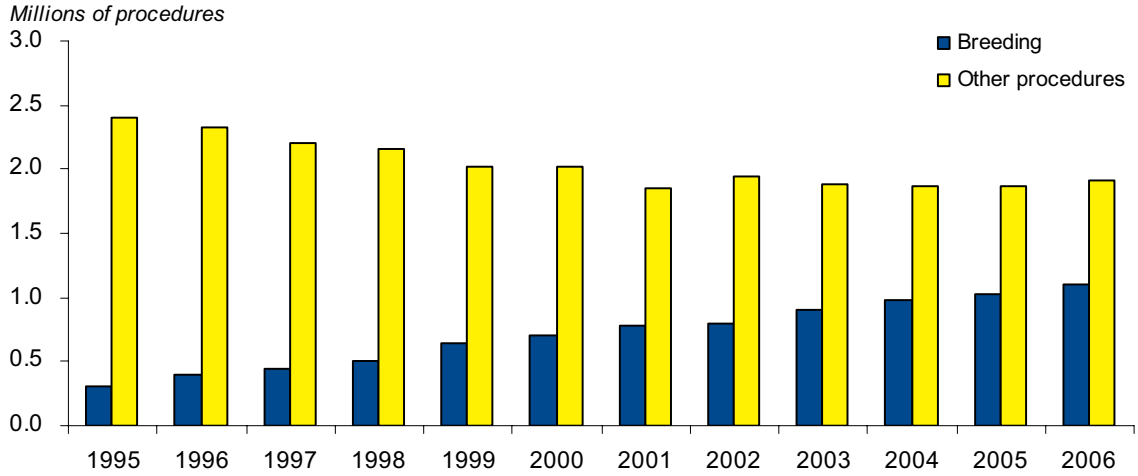


Figure 5: Comparison of breeding with all other procedures, 1995-2006

Source (Table 2)

Additional information can be found in Tables 2.1 and 2.2 on the website

Eighty-four percent of all procedures were performed on animals listed in Schedule 2 of the Act. These animals must come from a designated source, unless a special exemption is granted. The animals in Schedule 2 are: mouse, rat, guinea pig, hamster, gerbil, rabbit, cat, dog, ferret, non-human primate, pigs (if genetically modified), sheep (if genetically modified), and quail (*Coturnix coturnix*). The use of animals listed in Schedule 2 and acquired from non-designated sources in the UK was authorised under Section 10(3) of The Act.

- Use of Schedule 2 species increased by 81,800 (3%) on 2005. The number of procedures using these species has fluctuated in recent years.
- In total, 2.5 million (99%) procedures carried out on animals listed in Schedule 2 used animals acquired from designated establishments in the United Kingdom (sixty-four percent of these from the user's own establishment, and thirty-six percent from another designated UK establishment).
- Seventy-eight percent of naturally occurring harmful mutants and ninety-two percent of genetically modified animals were obtained from the licensee's own designated establishment.
- The number of procedures involving Schedule 2 listed animals obtained from sources outside the EU was 13,400, and of these seventy-four percent used mice or rats.

- Thirty-two percent of all procedures performed on non-human primates used animals from designated sources within the United Kingdom.
- Acquisition from abroad was mainly due to a lack of suitable animals.
- The dogs from non-designated sources within the UK were 'other dogs', i.e. neither beagles nor greyhounds. The research programmes required animals representative of the general pet population, which were not available from the usual designated sources, and which were used for studies relevant to that specific breed or type of dog.

Genetic status (Table 3, Figure 6)
Additional information can be found in the full version of Table 3 on the website, along with Tables 3.1, 3.2 and 3.3.

Genetically normal animals (Table 3, Figure 6)
Some 1.65 million (55%) procedures involved genetically normal animals, down 600 on 2005. The use of normal animals decreased from 2.27 million in 1995 to 1.65 million in 2006, down twenty-seven percent over this period. Of the normal animals used in breeding programmes, nearly all (97%) were mice.

Animals with a harmful genetic defect (Table 3, Figure 6)
Some 326,600 (11%) procedures involved animals with a harmful genetic defect, up 38,500 (13%) on 2005.

- Use of such animals has risen from eight percent of all procedures in 1995 to eleven percent now.
- Mice (78%), rats (10%), and fish (11%) were the animals most frequently used.
- Other than procedures associated with maintaining the breeding colonies, mice were mainly used for fundamental biological research and applied studies.
- The fish and amphibians were used for breeding and for fundamental biological research.

Genetically modified animals (Table 3, Figure 6)
Genetically modified (GM) were used in 1.04 million (34%) procedures in 2006, some 77,900 (8%) more than in 2005.

- The use of GM animals has more than quadrupled since 1995, see Figure 6.
- About 698,400 (67%) GM animals were used to maintain breeding colonies, a similar proportion to last year. An additional 311,200 (30%) were used for fundamental biological research.
- Mice were used in ninety-five percent of these procedures, most of the remainder being fish (4%).
- Genetically modified fish use rose by 7,700 while GM amphibian use was down 1,100.

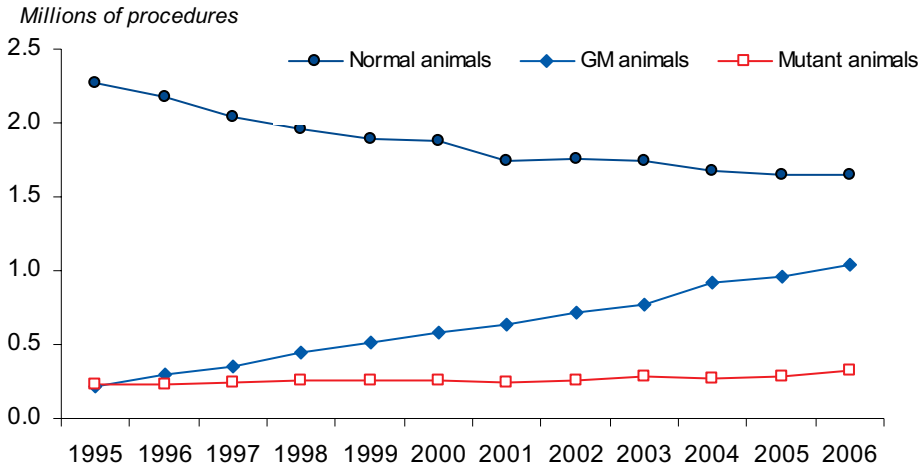


Figure 6: Procedures by genetic status of animal, 1995-2006

Target body system (Table 4 – Formerly Table 4a)
About half (52%) of all procedures were prospectively directed towards one particular body system:

- The Immune system was the largest single category, accounting for 468,400 procedures (16%).
- The Nervous system was the next largest with 364,800 (12%) procedures. Mice and rats were the major species used (96%).
- The Special Senses system accounted for 30,900 procedures, up 4,700 (18%) on 2005, for research mainly into hearing and sight.
- Procedures researching the Musculo-skeletal system were up by 19,700 (50%).
- The Reproductive system up by 11,200 (6%), the Cardiovascular and Alimentary systems also saw increases.
- All other singular body system categories saw decreases on 2005.
- Procedures conducted where the target body system was 'not relevant' accounted for 870,500 (29%), up 127,000 (17%) on 2005.
- The category for 'multiple' target body systems accounted for 589,200 (20%) down by 3,100 on 2005.

Use of anaesthesia (Table 5 – Formerly Table 4b)
Procedures are permitted without anaesthesia or analgesic only when the administration of an anaesthetic or analgesic is judged more traumatic than the procedure itself, or when anaesthesia is incompatible with the object of the procedure.

- Over sixty percent (62%) of procedures did not use any anaesthesia.
- Local anaesthesia was used in 302,500 (10%) procedures and mainly used mice (96%).
- Anaesthesia without recovery was used in 292,700 (10%) procedures up 17,200 (6%) from 2005.
- The use of neuromuscular blocking agents (NMBA) was recorded in 3,205 procedures in 2006; all of these were used with general anaesthesia.

FUNDAMENTAL AND APPLIED STUDIES OTHER THAN TOXICOLOGY, REGULATORY OR SAFETY PURPOSES

Some 2.59 million procedures were conducted for fundamental and applied studies other than toxicology, safety or other regulatory purposes. This accounted for eighty-six percent all procedures conducted in 2006.

- There was a rise of 88,500 (4%) in the number of such procedures.
- The number of animals used increased by 105,600 (4%), reflecting the rise in the overall number of procedures.
- Some 1.87 million (72%) procedures were performed on mice, a further 276,000 (11%) on rats, another 107,900 (4%) on birds (mainly domestic fowl) and 224,600 (9%) on fish.
- Dogs, cats and non-human primates were collectively used in 3,400 procedures, down 200 (6%) on 2005.

Field of research (Tables 6, 6a, Figures 5 and 7 – Formerly Tables 5 and 5a)
For details of the changes in the number of non-toxicology procedures reported for each field of research since 2005, please see Table 6. Points to note are:

- Immunology was the largest single category, accounting for 430,800 (17%) procedures, mainly using rodents.
- Categories where the number of procedures accounted for more than five percent of the total were: Anatomy, Physiology, Immunology, Pharmaceutical Research and Development (R&D), Genetics, Molecular Biology, Cancer research and the 'other' category.

Production of biological materials (Table 7 – Formerly Table 8)
In 2006 some 301,900 procedures, 1,900 more than in 2005, were performed to produce biological materials.

- About thirty-six percent of these were for the production of infectious agents, accounting for ten percent of all non-toxicological procedures; of this particular group the main species used were birds (64%) and mice (27%).
- Vectors, Neoplasms and Antibody production accounted for a further thirteen percent of these procedures; in all cases a wide range of species was used.
- The remaining fifty percent of production procedures were to obtain other biological material such as tissues or blood products, also using a wide range of species.
- The immunisation method to produce tissues for *in vitro*[1] used to produce monoclonal antibodies showed a drop of 900 to 2,300. There were no procedures recorded as performed using the ascites model in 2006.

TOXICOLOGY, OTHER SAFETY OR EFFICACY EVALUATION

Toxicology procedures or those used for safety and efficacy evaluation accounted for 420,500 (14%) of the total. This was about 1,400 (26%) fewer than in 2005. In 2006, toxicology procedures represented only fourteen percent of all procedures, compared with twenty-five percent in 1995. This is a fall of 256,700 procedures (38%) since 1995. Figure 7 shows there has been a continuing divergence between toxicology and non-toxicology procedures since 1997.

[1] See Appendix C for more details.

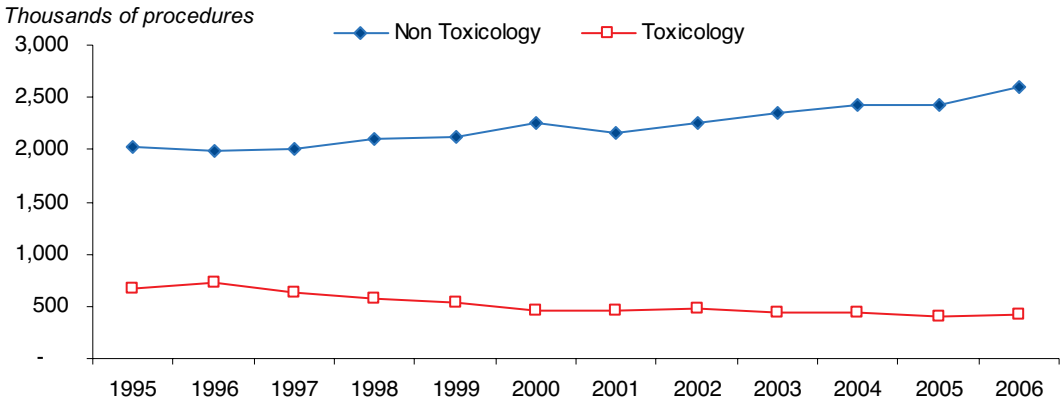


Figure 7: Toxicology and Non-Toxicology procedures

Species (Table 9 and Figure 8 – Formerly Table 10)
For details of the changes in the number of toxicology or other safety or efficacy evaluation procedures reported for each field of research in 2006 please see Table 9. Points to note are:

- The majority of animals used were rodents, accounting for 336,100 procedures (82%). The next major use was fish, accounting for some 49,500 procedures (12%).
- There were 3,400 procedures (less than 1%) that used non-human primates, principally old-world species, mainly for pharmaceutical safety testing
- Birds were used in 6,500 procedures (2%) and rabbits in 15,800 (4%) while the remaining species accounted for only three percent of all toxicology procedure

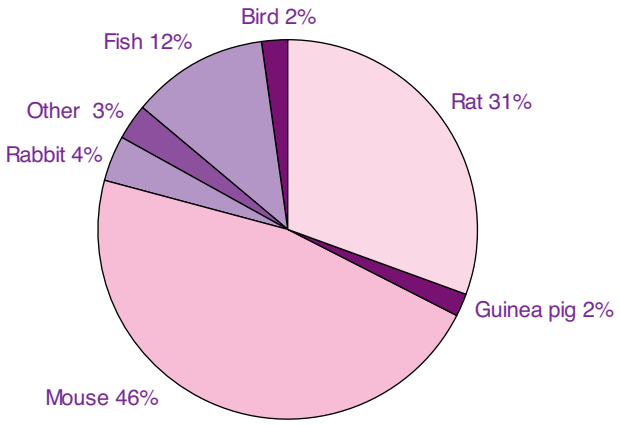


Figure 8: Procedures (toxicology) by species of animal, 2006

Purpose and Type of Test (Table 10 and Table 11 – Formerly Table 11 and Table12)

- In 2006 the majority (74%) of procedures were for pharmacological safety and efficacy evaluation. A further nineteen percent were for safety and efficacy evaluation and the remaining seven percent were for other purposes.
- The acute lethal toxicity tests include testing for biopharmaceuticals and food safety tests.
- In 2006 there was an increase in toxicology testing due to regulatory requirements, see paragraph below for more details. A further increase in animal use involved validation of a non-animal alternative for a pre-screening test.

Legislative requirements (Table 10, Figure 9 – Formerly Table 11)
The majority (86%) of the toxicology procedures in 2006 were to fulfil legislative requirements. Some 301,900 procedures (72%) were to satisfy a combination of requirements i.e. avoiding duplication of animal use to fulfil more than one legislative requirement. A further 58,600 procedures (14%) were for purposes other than direct legislative or regulatory requirements.

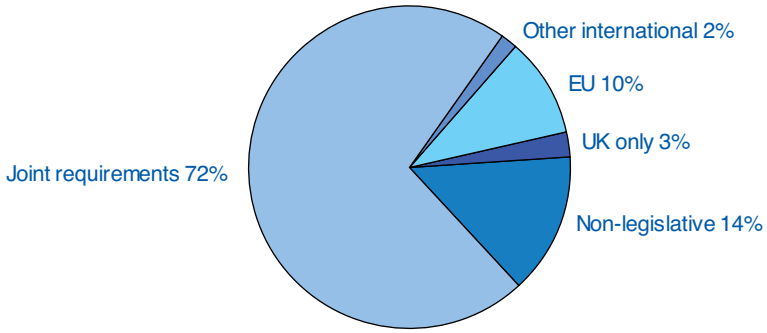


Figure 9: Procedures by legislative requirement (toxicology), 2006 (Table 10)

Rodenticide trials
It is impracticable to collect accurate figures on the number of animals affected in field trials of rodenticidal substances. However, there were no reports of field trials starting in 2006.

Use of animals on the CITES list
Returns were required on the use of animals listed in Appendix 1 of the Convention on International Trade in Endangered Species of Flora and Fauna (CITES) or in Annex C.1 to the Council Regulation (EEC) 3626/82 (see notes in Appendix B). There were 84 procedures performed on animals in this category in 2006, all 'other' birds.

RETURNS, PROJECT LICENSEES AND DESIGNATED PLACES
(*See Appendix A on the website for more details*)
Returns were received for all of the 3,396 project licences valid in 2006. Of which 2,427 licenses reported starting procedures. Of these 1,019 (42%) reported starting more than fifty procedures. There were 882 project licence holders, 26% of all licenses, reported starting no procedures in 2006.

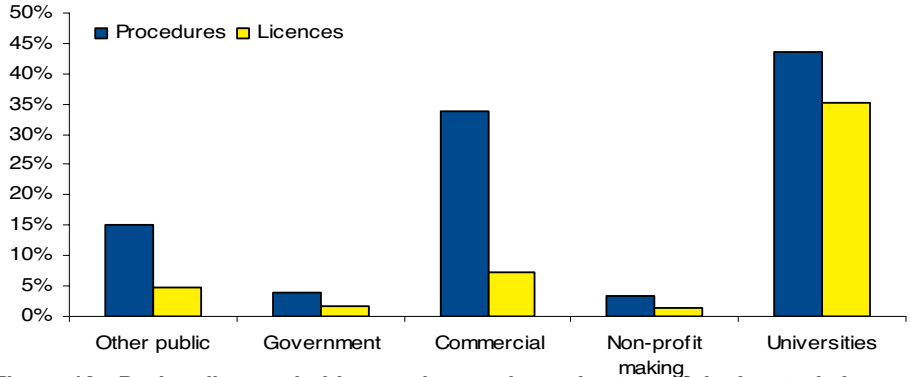
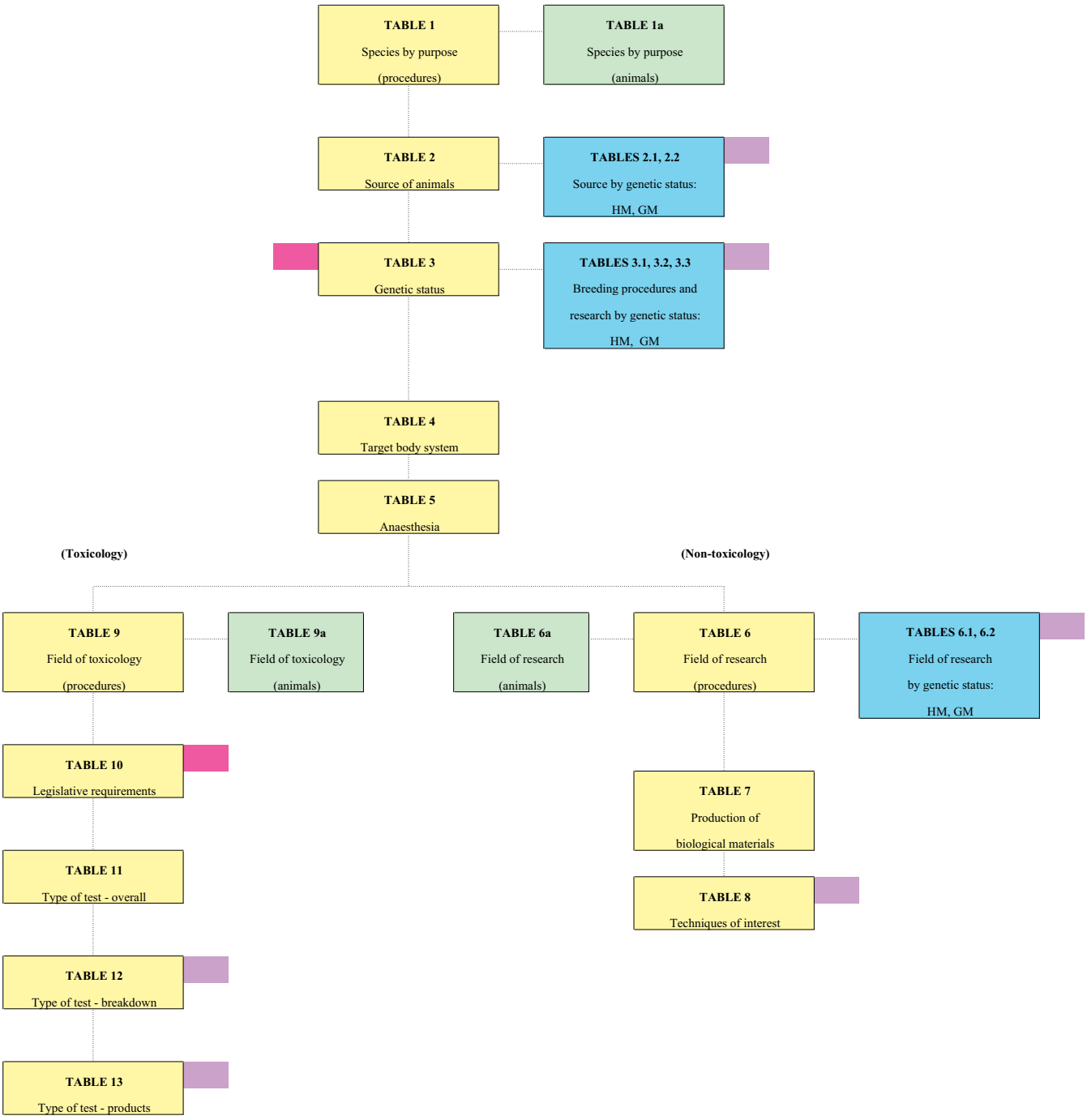


Figure 12: Project licence holders and procedures, by type of designated place

Organisation Chart: Relationship between the tables, 2006



Notes

GM = genetically modified

HM = harmful mutant

Counts the number of animals used

Counts the number of procedures conducted

Counts the number of procedures conducted by genetic status of animal (HM and GM)

These tables are only available on the website

Full version available on website

Descriptions of the terms used in the tables can be found in the Introductory Notes, available on the website
http://www.homeoffice.gov.uk/rds/scientific1.html

Table 1 Scientific procedures by species of animal and primary purpose of the procedure, page 1 of 2

Great Britain 2006 **Number of procedures**

Species of animal	Primary purpose of the procedure									Total
	Fundamental biological research	Applied studies - human medicine or dentistry	Applied studies -veterinary medicine	Protection of man, animals or environment	Education	Training	Forensic enquiries	Direct diagnosis	Breeding	
Mammal										
Mouse	656,800	341,361	20,732	22,779	911	-	-	10,744	1,013,744	**2,067,071**
Rat	118,238	228,092	2,442	37,016	599	900	-	1,335	17,546	**406,168**
Guinea pig	2,107	26,347	1,394	91	108	-	-	137	-	**30,184**
Hamster	2,168	988	935	104	-	-	-	-	67	**4,262**
Gerbil	418	765	-	-	-	-	-	-	46	**1,229**
Other rodent	1,625	-	160	126	4	-	-	-	-	**1,915**
Rabbit	1,557	13,142	1,911	1,690	16	-	-	1,945	117	**20,378**
Cat	70	-	454	-	-	-	-	-	-	**524**
Dog										
Beagle	57	6,950	124	101	-	-	-	170	-	**7,402**
Greyhound	-	-	-	-	-	-	-	-	-	**-**
Other inc cross-breds	7	-	186	-	-	-	-	-	-	**193**
Ferret	165	621	-	-	14	-	-	34	-	**834**
Other carnivore	344	-	343	156	-	-	-	-	-	**843**
Horse and other equids	493	-	240	-	-	-	34	8,054	-	**8,821**
Pig	1,867	1,080	1,644	75	-	-	-	9	-	**4,675**
Goat	502	20	15	2	-	-	-	10	-	**549**
Sheep	11,601	485	2,495	8	1	-	-	21,746	41	**36,377**
Cattle	1,387	-	3,552	61	-	-	-	334	-	**5,334**
Deer	88	-	-	-	-	-	-	-	-	**88**
Camelid	-	3	-	-	-	-	-	-	-	**3**
Other ungulate	-	-	-	-	-	-	-	-	-	**-**
Primate										
Prosimian	-	-	-	-	-	-	-	-	-	**-**
New World monkey	-	-	-	-	-	-	-	-	-	**-**
marmoset, tamarin	150	646	-	-	-	-	-	125	-	**921**
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	**-**
Other New World monkey	-	-	-	-	-	-	-	-	-	-

Table 1 Scientific procedures by species of animal and primary purpose of the procedure, page 2 of 2

Great Britain 2006 **Number of procedures**

Species of animal	Primary purpose of the procedure									Total
	Fundamental biological research	Applied studies - human medicine or dentistry	Applied studies -veterinary medicine	Protection of man, animals or environment	Education	Training	Forensic enquiries	Direct diagnosis	Breeding	
Old World monkey										
Macaque	57	2,833	-	377	-	-	16	-	-	**3,283**
Baboon	-	-	-	-	-	-	-	-	-	**-**
Other Old World monkey	-	-	-	-	-	-	-	-	-	**-**
Ape										
Gibbon	-	-	-	-	-	-	-	-	-	**-**
Great ape	-	-	-	-	-	-	-	-	-	**-**
Other mammal	1,095	55	166	353	-	-	-	-	-	**1,669**
Bird										
Domestic fowl (*Gallus domesticus*)	18,314	9	79,260	134	137	-	-	1,657	422	**99,933**
Turkey	3,256	51	336	-	-	-	-	200	-	**3,843**
Quail (*Coturnix coturnix*)	-	-	-	-	-	-	-	-	-	**-**
Quail (not *Coturnix coturnix*)	14	-	-	413	-	-	-	-	-	**427**
Other bird	6,772	-	442	2,331	-	-	-	680	-	**10,225**
Reptile										
Any reptilian species	70	-	-	129	-	-	-	-	-	**199**
Amphibian										
Any amphibian species	16,701	-	-	829	137	-	-	-	2,949	**20,616**
Fish										
Any fish species	116,911	10,895	22,580	54,703	-	-	-	2,294	66,683	**274,066**
Cephalopod										
Octopus vulgaris	-	-	-	-	-	-	-	-	-	-
Total	**962,834**	**634,343**	**139,411**	**121,478**	**1,927**	**900**	**50**	**49,474**	**1,101,615**	**3,012,032**
Increase on 2005	23,068	9,392	-16,800	17,656	309	3	-4	7,745	74,465	115,834
Percentage change from 2005	2%	2%	-11%	17%	19%	<1%	-7%	19%	7%	4%
Percent of total for 2006	32%	21%	5%	4%	<1%	<1%	<1%	2%	37%	100%

<1% Less than one percent.

Table 1a Animals by species of animal and primary purpose of the procedure, page 1 of 2

Great Britain 2006 **Number of animals**

Species of animal	Primary purpose of the procedure									Total
	Fundamental biological research	Applied studies -human medicine or dentistry	Applied studies -veterinary medicine	Protection of man, animals or environment	Education	Training	Forensic enquiries	Direct diagnosis	Breeding	
Mammal										
Mouse	651,803	340,555	20,732	22,779	911	-	-	10,744	1,010,415	**2,057,939**
Rat	116,464	224,409	2,442	37,016	599	900	-	1,335	17,546	**400,711**
Guinea pig	2,045	26,264	1,394	91	108	-	-	137	-	**30,039**
Hamster	1,585	988	935	104	-	-	-	-	67	**3,679**
Gerbil	418	765	-	-	-	-	-	-	46	**1,229**
Other rodent	1,625	-	160	126	4	-	-	-	-	**1,915**
Rabbit	1,402	7,052	1,193	1,683	16	-	-	1,934	117	**13,397**
Cat	70	-	280	-	-	-	-	-	-	**350**
Dog										
Beagle	33	5,259	105	95	-	-	-	21	-	**5,513**
Greyhound	-	-	-	-	-	-	-	-	-	**-**
Other including cross-bred dogs	7	-	84	-	-	-	-	-	-	**91**
Ferret	165	612	-	-	14	-	-	34	-	**825**
Other carnivore	344	-	343	156	-	-	-	-	-	**843**
Horse, and other equids	185	-	112	-	-	-	2	402	-	**701**
Pig	1,867	1,044	1,608	75	-	-	-	2	-	**4,596**
Goat	470	20	15	2	-	-	-	10	-	**517**
Sheep	11,421	485	2,425	8	1	-	-	2,245	41	**16,626**
Cattle	1,230	-	2,076	61	-	-	-	334	-	**3,701**
Deer	88	-	-	-	-	-	-	-	-	**88**
Camelid	-	3	-	-	-	-	-	-	-	**3**
Other ungulate	-	-	-	-	-	-	-	-	-	**-**
Primate										
Prosimian	-	-	-	-	-	-	-	-	-	**-**
New World monkey										
marmoset, tamarin	117	416	-	-	-	-	-	125	-	**658**
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	**-**
Other New World monkey	-	-	-	-	-	-	-	-	-	**-**

Table 1a Animals by species of animal and primary purpose of the procedure, page 2 of 2

Great Britain 2006 **Number of animals**

Species of animal	Primary purpose of the procedure									Total
	Fundamental biological research	Applied studies -human medicine or dentistry	Applied studies -veterinary medicine	Protection of man, animals or environment	Education	Training	Forensic enquiries	Direct diagnosis	Breeding	
Old World monkey										
Macaque	57	2,062	-	315	-	-	16	-	-	**2,450**
Baboon	-	-	-	-	-	-	-	-	-	**-**
Other Old World monkey	-	-	-	-	-	-	-	-	-	**-**
Ape										
Gibbon	-	-	-	-	-	-	-	-	-	**-**
Great ape	-	-	-	-	-	-	-	-	-	**-**
Other mammal	1,095	55	166	312	-	-	-	-	-	**1,628**
Bird										
Domestic fowl (*Gallus domesticus*)	18,279	9	79,260	134	137	-	-	1,657	422	**99,898**
Turkey	3,256	8	336	-	-	-	-	112	-	**3,712**
Quail (*Coturnix coturnix*)	-	-	-	-	-	-	-	-	-	**-**
Quail (not *Coturnix coturnix*)	14	-	-	413	-	-	-	-	-	**427**
Other bird	6,557	-	302	2,331	-	-	-	471	-	**9,661**
Reptile										
Any reptilian species	70	-	-	129	-	-	-	-	-	**199**
Amphibian										
Any amphibian species	8,630	-	-	829	107	-	-	-	2,893	**12,459**
Fish										
Any fish species	116,316	10,895	22,100	54,703	-	-	-	2,294	66,461	**272,769**
Cephalopod										
Octopus vulgaris	-	-	-	-	-	-	-	-	-	-
Total	**945,613**	**620,901**	**136,068**	**121,362**	**1,897**	**900**	**18**	**21,857**	**1,098,008**	**2,946,624**

Table 2 Scientific procedures by Schedule 2 listed species and source of animals

Great Britain 2006 **Number of procedures**

Species of animal	Source of animals							Total
	Animals acquired from within own designated establishment	Animals acquired from another designated breeding or supplying establishment in the UK	Animals acquired from non-designated sources in the UK	Animals acquired from sources within the EU (outside the UK)	Animals acquired from Council of Europe countries who are signatories to ETS123	Animals acquired from other sources	Animals not listed in schedule 2	
Mouse	1,503,666	547,303	30	6,509	401	9,162	-	**2,067,071**
Rat	91,956	312,667	136	1,019	165	225	-	**406,168**
Guinea pig	686	28,914	-	563	21	-	-	**30,184**
Hamster	1,040	1,697	-	1,525	-	-	-	**4,262**
Gerbil	269	206	-	731	-	23	-	**1,229**
Rabbit	5,769	13,838	23	528	-	220	-	**20,378**
Cat	171	13	-	340	-	-	-	**524**
Dog	1,782	5,308	103	32	-	370	-	**7,595**
Ferret	52	777	-	-	-	5	-	**834**
Pig (genetically modified)	-	-	-	-	-	-	-	**-**
Sheep (genetically modified)	6	-	-	-	-	-	-	**6**
Primate	729	630	-	39	-	2,806	-	**4,204**
Quail *(Coturnix coturnix)*	-	-	-	-	-	-	-	**-**
Animals not listed	-	-	-	-	-	-	469,577	**469,577**
Total	**1,606,126**	**911,353**	**292**	**11,286**	**587**	**12,811**	**469,577**	**3,012,032**

Table 3 Scientific procedures by species of animal, primary purpose and genetic status

Summary Version

Great Britain 2006 **Number of procedures**

Species of animal	Genetic status			Total
	Normal animal	Animal with harmful genetic defect	Genetically modified animal	
Mammal				
Mouse	829,508	255,928	981,635	**2,067,071**
Rat	369,159	31,649	5,360	**406,168**
Guinea pig	30,184	-	-	**30,184**
Hamster	4,262	-	-	**4,262**
Gerbil	1,229	-	-	**1,229**
Other rodent	1,915	-	-	**1,915**
Rabbit	20,255	123	-	**20,378**
Cat	524	-	-	**524**
Dog				
Beagle	7,402	-	-	**7,402**
Greyhound	-	-	-	**-**
Other inc cross-breds	193	-	-	**193**
Ferret	834	-	-	**834**
Other carnivore	843	-	-	**843**
Horse and other equids	8,821	-	-	**8,821**
Pig	4,675	-	-	**4,675**
Goat	549	-	-	**549**
Sheep	36,371	-	6	**36,377**
Cattle	5,334	-	-	**5,334**
Deer	88	-	-	**56**
Other ungulate	3	-	-	**3**
Primate				
Prosimian	-	-	-	**-**
New World monkey				
marmoset, tamarin	921	-	-	**921**
Squirrel, owl, spider monkey	-	-	-	**-**
Other New World monkey	-	-	-	**-**
Old World monkey				
Macaque	3,283	-	-	**3,283**
Baboon	-	-	-	**-**
Other Old World monkey	-	-	-	**-**
Ape				
Gibbon	-	-	-	**-**
Great ape	-	-	-	**-**
Other mammal	1,669	-	-	**1,669**
Bird				
Domestic fowl (*Gallus domesticus*)	98,672	959	302	**99,933**
Turkey	3,843	-	-	**3,843**
Quail (*Coturnix coturnix*)	-	-	-	**-**
Quail (not *Coturnix coturnix*)	427	-	-	**427**
Other bird	10,225	-	-	**10,225**
Reptile	199	-	-	**199**
Amphibian	15,727	2,965	1,924	**20,616**
Fish	192,925	35,025	46,116	**274,066**
Cephalopod	-	-	-	**-**
Total	**1,650,040**	**326,649**	**1,035,343**	**3,012,032**
Proportion	55%	11%	34%	100%

Table 4 Scientific procedures by species of animal and target body system

Previously Table 4a

Great Britain 2006 **Number of procedures**

Species of animal	Body systems												Total
	Respiratory	Cardiovascular	Nervous	Senses	Alimentary	Skin	Musculo - skeletal	Reproductive	Immune and reticulo - endothelial	Other system	Multiple systems	System not relevant	
Mammal													
Mouse	43,521	57,344	219,696	23,446	29,204	28,241	45,854	130,772	426,041	26,627	402,177	634,148	**2,067,071**
Rat	23,574	18,152	129,006	2,982	13,523	1,559	6,083	29,444	13,659	13,800	95,912	58,474	**406,168**
Other rodent	16,407	901	2,136	365	684	419	145	124	6,368	158	4,120	5,763	**37,590**
Rabbit	70	899	182	97	54	1,168	419	4,257	2,298	639	8,744	1,551	**20,378**
Cat	-	10	21	39	48	5	-	-	31	-	352	18	**524**
Dog	920	846	7	-	204	10	-	4	33	103	3,000	2,468	**7,595**
Ferret	453	66	69	50	-	-	-	-	156	-	3	37	**834**
Other carnivore	-	5	-	-	-	-	-	-	-	-	343	495	**843**
Horse and other equids	154	271	7	-	34	20	1	48	198	5,784	17	2,287	**8,821**
Other ungulate	759	754	329	7	2,925	414	347	2,407	3,644	20,460	4,788	10,192	**47,026**
Primate													
New World monkey	-	181	61	-	12	-	8	90	44	-	130	395	**921**
Old World monkey	2	116	142	3	-	-	-	4	30	-	1,218	1,768	**3,283**
Other mammal	-	240	55	2	-	574	-	-	-	240	65	493	**1,669**
Bird	232	1,994	2,750	1,406	5,491	52	1,242	382	6,083	72,612	5,515	16,669	**114,428**
Reptile / Amphibian	90	42	65	72	14	266	614	14,585	-	-	2,385	2,682	**20,815**
Fish	-	3,491	10,239	2,468	8,314	4,868	4,880	35,024	9,806	1,442	60,471	133,063	**274,066**
Total	**86,182**	**85,312**	**364,765**	**30,937**	**60,507**	**37,596**	**59,593**	**217,141**	**468,391**	**141,865**	**589,240**	**870,503**	**3,012,032**

Table 5 Scientific procedures by species of animal and level of anaesthesia

Previously Table 4b

Great Britain 2006 **Number of procedures**

Species of animal	No anaesthesia	Type of anaesthesia				Total
		General anaesthesia, with recovery	Local anaesthesia	General anaesthesia at end of procedure, without recovery	General anaesthesia throughout, without recovery	
Mammal						
Mouse	1,319,508	334,946	289,127	90,752	32,738	**2,067,071**
Rat	222,656	109,351	2,851	39,691	31,619	**406,168**
Other rodent	16,643	14,097	252	3,289	3,309	**37,590**
Rabbit	16,361	758	201	1,580	1,478	**20,378**
Cat	423	46	-	34	21	**524**
Dog	4,993	375	731	979	517	**7,595**
Ferret	25	736	-	33	40	**834**
Other carnivore	70	773	-	-	-	**843**
Horse and other equids	602	-	8,219	-	-	**8,821**
Other ungulate	43,621	2,224	529	143	509	**47,026**
Primate						
New World monkey	680	66	40	134	1	**921**
Old World monkey	2,944	294	-	32	13	**3,283**
Other mammal	1,151	2	516	-	-	**1,669**
Bird	43,550	63	8	69,180	1,627	**114,428**
Reptile / Amphibian	17,728	2,881	-	-	206	**20,815**
Fish	165,803	93,534	-	11,902	2,827	**274,066**
Total	**1,856,758**	**560,146**	**302,474**	**217,749**	**74,905**	**3,012,032**

Neuromuscular blocking agents (NMBA) were used in 3,205 procedures in 2006. All of these procedures involved the use of general anaesthesia.

Table 6 Scientific procedures (non-toxicology) by species of animal and field of research, page 1 of 4
Previously Table 5

Great Britain 2006 **Number of procedures**

Species of animal	Field of research												
	Anatomy	Physiology	Biochemistry	Psychology	Pathology	Immunology	Microbiology	Parasitology	Pharmacology	Pharmaceutical R&D	Therapeutics	Clinical medicine	Clinical surgery
Mammal													
Mouse	187,148	212,017	35,024	27,055	41,650	401,023	30,765	26,512	35,090	163,501	19,466	12,421	776
Rat	9,855	41,398	4,059	17,004	3,578	7,447	1,100	1,985	18,862	121,827	4,709	4,885	1,458
Guinea pig	10	781	-	-	90	714	640	53	2,000	17,867	2	-	-
Hamster	25	537	9	2	-	214	213	1,131	-	199	-	-	-
Gerbil	8	9	-	-	-	28	66	247	-	765	-	-	-
Other rodent	-	-	-	42	-	-	71	4	-	-	-	-	-
Rabbit	21	769	171	106	108	1,322	572	42	155	704	45	293	38
Cat	-	55	-	-	-	31	-	5	15	291	-	-	-
Dog													
Beagle	-	20	-	-	-	-	-	-	-	1,726	-	24	-
Greyhound	-	-	-	-	-	-	-	-	-	-	-	-	-
Other including cross-bred dogs	-	-	-	-	-	-	-	-	7	-	-	4	-
Ferret	11	103	-	16	-	161	473	-	55	4	-	-	-
Other carnivore	-	3	-	3	-	6	-	-	-	-	-	-	-
Horse and other equids	-	65	-	-	-	219	8,062	-	255	-	-	34	1
Pig	29	183	-	552	178	335	572	12	-	192	54	104	104
Goat	-	67	-	-	-	32	15	407	-	-	-	-	26
Sheep	53	1,062	246	164	605	334	21,633	565	18	155	146	261	181
Cattle	-	792	-	-	9	2,490	251	56	-	149	-	-	-
Deer	-	-	-	-	-	-	-	-	-	-	-	-	-
Camelid	-	-	-	-	-	3	-	-	-	-	-	-	-
Other ungulate	-	-	-	-	-	-	-	-	-	-	-	-	-
Primate													
Prosimian	-	-	-	-	-	-	-	-	-	-	-	-	-
New World monkey													
marmoset, tamarin	-	90	10	38	-	34	3	-	70	364	-	-	-
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	-	-	-	-
Other New World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 6 Scientific procedures (non-toxicology) by species of animal and field of research, page 2 of 4
Previously Table 5

Great Britain 2006 **Number of procedures**

Species of animal	Field of research												
	Anatomy	Physiology	Biochemistry	Psychology	Pathology	Immunology	Microbiology	Parasitology	Pharmacology	Pharmaceutical R&D	Therapeutics	Clinical medicine	Clinical surgery
Old World monkey													
Macaque	-	46	-	3	-	30	32	-	-	107	-	-	-
Baboon	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Old World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-
Ape													
Gibbon	-	-	-	-	-	-	-	-	-	-	-	-	-
Great ape	-	-	-	-	-	-	-	-	-	-	-	-	-
Other mammal	2	-	-	-	-	-	-	-	55	-	-	-	-
Bird													
Domestic fowl (*Gallus domesticus*)	1,698	38	227	4,123	1,382	4,585	6,553	69,494	-	160	-	-	-
Turkey	-	-	-	-	-	109	340	188	-	165	-	-	-
Quail (*Coturnix coturnix*)	-	-	-	-	-	-	-	-	-	-	-	-	-
Quail (not *Coturnix coturnix*)	-	14	-	-	-	-	-	-	-	-	-	-	-
Other bird	-	70	-	421	-	1,000	197	238	-	72	-	-	-
Reptile													
Any reptilian species	-	70	-	-	-	-	-	-	-	-	-	-	-
Amphibian													
Any amphibian species	12,385	679	1,000	-	-	-	1,350	294	10	-	-	-	-
Fish													
Any fish species	58,633	11,952	-	3,987	2,955	10,705	20,291	5,986	-	6,769	-	-	-
Cephalopod													
Octopus vulgaris	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**269,878**	**270,820**	**40,746**	**53,516**	**50,555**	**430,822**	**93,199**	**107,219**	**56,592**	**315,017**	**24,422**	**18,026**	**2,584**
Increase on 2005	28,219	53,942	2,544	8,269	3,467	-42,267	9,376	7,197	-13,061	-32,047	7,607	4,196	591
Percentage change from 2005	12%	25%	7%	18%	7%	-9%	11%	7%	-19%	-9%	45%	30%	30%
Percent of total for 2006	10%	10%	2%	2%	2%	17%	4%	4%	2%	12%	1%	1%	<1%

<1% Less than one percent.

Table 6 Scientific procedures (non-toxicology) by species of animal and field of research, page 3 of 4
Previously Table 5

Great Britain 2006 **Number of procedures**

Species of animal	Field of research													Total
	Dentistry	Genetics	Molecular biology	Cancer research	Nutrition	Zoology	Botany	Animal science	Ecology	Animal welfare	Other	Tobacco	Alcohol	
Mammal														
Mouse	242	141,105	132,268	270,680	2,072	21	12	5,743	40	204	125,231	-	640	**1,870,706**
Rat	328	15,770	2,994	8,856	3,529	29	4	-	-	495	5,737	-	50	**275,959**
Guinea pig	-	-	-	-	-	-	-	-	3	-	-	-	-	**22,160**
Hamster	-	-	83	68	36	235	-	-	-	-	-	-	-	**2,752**
Gerbil	-	-	-	106	-	-	-	-	-	-	-	-	-	**1,229**
Other rodent	-	-	-	-	-	20	-	-	1,694	23	-	-	-	**1,854**
Rabbit	-	4	-	55	9	-	-	-	21	23	152	-	-	**4,610**
Cat	-	-	-	-	109	-	-	-	-	-	-	-	-	**506**
Dog														
Beagle	-	-	4	66	-	-	-	-	-	-	16	-	-	**1,856**
Greyhound	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Other including cross-bred dogs	-	56	-	-	126	-	-	-	-	-	-	-	-	**193**
Ferret	-	-	-	-	-	-	-	-	-	-	-	-	-	**823**
Other carnivore	-	-	-	-	-	54	-	5	417	18	-	-	-	**506**
Horse and other equids	-	131	-	20	-	-	-	-	-	34	-	-	-	**8,821**
Pig	-	-	5	-	251	-	-	95	-	57	14	-	-	**2,737**
Goat	-	-	-	-	-	-	-	-	-	-	-	-	-	**547**
Sheep	-	953	-	-	255	-	-	9,314	32	37	-	-	-	**36,014**
Cattle	-	349	-	-	125	-	-	141	34	-	-	-	-	**4,396**
Deer	-	88	-	-	-	-	-	-	-	-	-	-	-	**88**
Camelid	-	-	-	-	-	-	-	-	-	-	-	-	-	**3**
Other ungulate	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Primate														
Prosimian	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
New World monkey														
marmoset, tamarin	-	-	-	-	-	-	-	-	-	-	-	-	-	**609**
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Other New World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**

Table 6 Scientific procedures (non-toxicology) by species of animal and field of research, page 4 of 4
Previously Table 5

Great Britain 2006 **Number of procedures**

Species of animal	Field of research													Total
	Dentistry	Genetics	Molecular biology	Cancer research	Nutrition	Zoology	Botany	Animal science	Ecology	Animal welfare	Other	Tobacco	Alcohol	
Old World monkey														
Macaque	-	-	-	-	-	-	-	-	-	-	-	-	-	**218**
Baboon	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Other Old World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Ape														
Gibbon	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Great ape	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Other mammal	-	26	756	-	-	-	-	-	830	-	-	-	-	**1,669**
Bird														
Domestic fowl (*Gallus domesticus*)	-	1,479	-	-	1,382	-	-	2,727	-	136	-	-	-	**93,984**
Turkey	-	-	-	-	48	-	-	2,993	-	-	-	-	-	**3,843**
Quail (*Coturnix coturnix*)	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Quail (not *Coturnix coturnix*)	-	-	-	-	-	-	-	-	-	-	-	-	-	**14**
Other bird	-	383	-	-	129	2,007	-	-	5,528	-	-	-	-	**10,045**
Reptile														
Any reptilian species	-	-	-	-	-	-	-	-	129	-	-	-	-	**199**
Amphibian														
Any amphibian species	-	2,674	115	1,311	-	-	1	-	797	-	-	-	-	**20,616**
Fish														
Any fish species	-	31,594	543	4,155	3,036	2,683	-	651	59,844	806	-	-	-	**224,590**
Cephalopod														
Octopus vulgaris	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Total	**570**	**194,612**	**136,768**	**285,317**	**11,107**	**5,049**	**17**	**21,669**	**69,369**	**1,833**	**131,150**	**-**	**690**	**2,591,547**
Increase on 2005	338	24,345	6,043	7,748	-5,126	-3,407	-22	11,036	15,347	-10,772	5,548	N/A	-648	88,463
Percentage change from 2005	146%	14%	5%	3%	-32%	-40%	-56%	104%	28%	-85%	4%	N/A	-48%	4%
Percent of total for 2006	<1%	8%	5%	11%	<1%	<1%	<1%	1%	3%	<1%	5%	N/A	<1%	100%

<1% Less than one percent.

N/A = No comparable figures for 2005

Table 6a Animals (non-toxicology) by species and field of research, page 1 of 4
Previously Table 5a

Great Britain 2006 **Number of animals**

Species of animal	Field of research												
	Anatomy	Physiology	Biochemistry	Psychology	Pathology	Immunology	Microbiology	Parasitology	Pharmacology	Pharmaceutical R&D	Therapeutics	Clinical medicine	Clinical surgery
Mammal													
Mouse	186,950	211,864	34,871	27,055	41,166	397,968	30,357	26,512	34,074	163,233	19,466	12,166	776
Rat	9,852	41,037	4,055	16,505	3,578	7,437	1,100	1,985	18,638	118,016	4,709	4,489	1,458
Guinea pig	10	721	-	-	90	714	640	53	2,000	17,784	-	-	-
Hamster	25	537	9	2	-	214	213	761	-	199	-	-	-
Gerbil	8	9	-	-	-	28	66	247	-	765	-	-	-
Other rodent	-	-	-	42	-	-	71	4	-	-	-	-	-
Rabbit	21	769	31	106	108	1,321	561	28	155	704	45	293	38
Cat	-	55	-	-	-	31	-	-	15	225	-	-	-
Dog													
Beagle	-	20	-	-	-	-	-	-	-	1,215	-	24	-
Greyhound	-	-	-	-	-	-	-	-	-	-	-	-	-
Other including cross-bred dogs	-	-	-	-	-	-	-	-	7	-	-	4	-
Ferret	11	103	-	16	-	161	464	-	55	4	-	-	-
Other carnivore	-	3	-	3	-	6	-	-	-	-	-	-	-
Horse and other equids	-	26	-	-	-	70	410	-	7	-	-	34	1
Pig	29	183	-	552	178	335	572	12	-	176	54	104	104
Goat	-	35	-	-	-	32	15	407	-	-	-	-	26
Sheep	51	953	246	164	605	283	2,188	557	18	99	146	261	181
Cattle	-	715	-	-	9	1,052	220	35	-	126	-	-	-
Deer	-	-	-	-	-	-	-	-	-	-	-	-	-
Camelid	-	-	-	-	-	3	-	-	-	-	-	-	-
Other ungulate	-	-	-	-	-	-	-	-	-	-	-	-	-
Primate													
Prosimian	-	-	-	-	-	-	-	-	-	-	-	-	-
New World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-
marmoset, tamarin	-	61	6	38	-	23	3	-	70	158	-	-	-
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	-	-	-	-
Other New World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 6a Animals (non-toxicology) by species and field of research, page 2 of 4
Previously Table 5a

Great Britain 2006 **Number of animals**

Species of animal	Field of research												
	Anatomy	Physiology	Biochemistry	Psychology	Pathology	Immunology	Microbiology	Parasitology	Pharmacology	Pharmaceutical R&D	Therapeutics	Clinical medicine	Clinical surgery
Old World monkey													
Macaque	-	46	-	3	-	30	32	-	-	5	-	-	-
Baboon	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Old World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-
Ape													
Gibbon	-	-	-	-	-	-	-	-	-	-	-	-	-
Great ape	-	-	-	-	-	-	-	-	-	-	-	-	-
Other mammal	2	-	-	-	-	-	-	-	55	-	-	-	-
Bird													
Domestic fowl (*Gallus domesticus*)	1,698	38	227	4,123	1,382	4,550	6,553	69,494	-	160	-	-	-
Turkey	-	-	-	-	-	109	297	188	-	77	-	-	-
Quail (*Coturnix coturnix*)	-	-	-	-	-	-	-	-	-	-	-	-	-
Quail (not*Coturnix coturnix*)	-	14	-	-	-	-	-	-	-	-	-	-	-
Other bird	-	60	-	421	-	757	197	238	-	72	-	-	-
Reptile													
Any reptilian species	-	70	-	-	-	-	-	-	-	-	-	-	-
Amphibian													
Any amphibian species	6,697	222	69	-	-	-	1,350	294	10	-	-	-	-
Fish													
Any fish species	58,403	11,952	-	3,964	2,955	10,705	20,291	5,986	-	6,769	-	-	-
Cephalopod													
Octopus vulgaris	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**263,757**	**269,493**	**39,514**	**52,994**	**50,071**	**425,829**	**65,600**	**106,801**	**55,104**	**309,787**	**24,420**	**17,375**	**2,584**

Table 6a Animals (non-toxicology) by species and field of research, page 3 of 4
Previously Table 5a

Great Britain 2006 **Number of animals**

Species of animal	Field of research													Total
	Dentistry	Genetics	Molecular biology	Cancer research	Nutrition	Zoology	Botany	Animal science	Ecology	Animal welfare	Other	Tobacco	Alcohol	
Mammal														
Mouse	242	141,016	132,268	269,731	2,072	21	12	5,743	40	204	123,127	-	640	**1,861,574**
Rat	328	15,762	2,994	8,794	3,529	29	4	-	-	495	5,736	-	50	**270,580**
Guinea pig	-	-	-	-	-	-	-	-	3	-	-	-	-	**22,015**
Hamster	-	-	83	68	36	22	-	-	-	-	-	-	-	**2,169**
Gerbil	-	-	-	106	-	-	-	-	-	-	-	-	-	**1,229**
Other rodent	-	-	-	-	-	20	-	-	1,694	23	-	-	-	**1,854**
Rabbit	-	4	-	55	9	-	-	-	21	23	152	-	-	**4,444**
Cat	-	-	-	-	11	-	-	-	-	-	-	-	-	**337**
Dog														
Beagle	-	-	4	3	-	-	-	-	-	-	4	-	-	**1,270**
Greyhound	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Other including cross-bred dogs	-	56	-	-	24	-	-	-	-	-	-	-	-	**91**
Ferret	-	-	-	-	-	-	-	-	-	-	-	-	-	**814**
Other carnivore	-	-	-	-	-	54	-	5	417	18	-	-	-	**506**
Horse and other equids	-	131	-	20	-	-	-	-	-	2	-	-	-	**701**
Pig	-	-	5	-	251	-	-	95	-	57	14	-	-	**2,721**
Goat	-	-	-	-	-	-	-	-	-	-	-	-	-	**515**
Sheep	-	953	-	-	228	-	-	9,270	32	31	-	-	-	**16,266**
Cattle	-	349	-	-	112	-	-	145	34	-	-	-	-	**2,797**
Deer	-	88	-	-	-	-	-	-	-	-	-	-	-	**88**
Camelid	-	-	-	-	-	-	-	-	-	-	-	-	-	**3**
Other ungulate	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Primate														
Prosimian	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
New World monkey														
marmoset, tamarin	-	-	-	-	-	-	-	-	-	-	-	-	-	**359**
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Other New World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 6a Animals (non-toxicology) by species of animal and field of research, page 4 of 4
Previously Table 5a

Great Britain 2006 **Number of animals**

Species of animal	Field of research													Total
	Dentistry	Genetics	Molecular biology	Cancer research	Nutrition	Zoology	Botany	Animal science	Ecology	Animal welfare	Other	Tobacco	Alcohol	
Old World monkey														
Macaque	-	-	-	-	-	-	-	-	-	-	-	-	-	**116**
Baboon	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Other Old World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Ape	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Gibbon	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Great ape	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Other mammal	-	26	756	-	-	-	-	-	789	-	-	-	-	**1,628**
Bird	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Domestic fowl (*Gallus domesticus*)	-	1,479	-	-	1,382	-	-	2,727	-	136	-	-	-	**93,949**
Turkey	-	-	-	-	48	-	-	2,993	-	-	-	-	-	**3,712**
Quail (*Coturnix coturnix*)	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Quail (not*Coturnix coturnix*)	-	-	-	-	-	-	-	-	-	-	-	-	-	**14**
Other bird	-	383	-	-	23	1,802	-	-	5,528	-	-	-	-	**9,481**
Reptile	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Any reptilian species	-	-	-	-	-	-	-	-	129	-	-	-	-	**199**
Amphibian	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Any amphibian species	-	2,580	68	371	-	-	1	-	797	-	-	-	-	**12,459**
Fish	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Any fish species	-	31,582	543	4,155	2,556	2,683	-	651	59,295	806	-	-	-	**223,296**
Cephalopod	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Octopus vulgaris	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**570**	**194,409**	**136,721**	**283,303**	**10,281**	**4,631**	**17**	**21,629**	**68,779**	**1,795**	**129,033**	**-**	**690**	**2,535,187**

Table 7 Scientific procedures (non-toxicology) by species of animal and production of biological materials

Previously Table 8

Great Britain 2006 **Number of procedures**

Species of animal	Production							Other [1]	Total
	Infectious agents	Vectors	Neoplasms	Monoclonal antibodies (ascites model)	Monoclonal antibodies (initial immunisation)	Polyclonal antibodies	Other biological materials		
Mammal									
Mouse	29,778	5,358	10,634	-	1,954	14,928	92,827	1,715,227	**1,870,706**
Rat	2,532	296	492	-	223	611	16,820	254,985	**275,959**
Other rodent	986	774	66	-	2	269	871	25,027	**27,995**
Rabbit	18	14	-	-	27	2,121	381	2,049	**4,610**
Cat	-	5	-	-	-	10	-	491	**506**
Dog	8	-	-	-	-	2	431	1,608	**2,049**
Ferret	-	-	-	-	-	33	577	213	**823**
Other carnivore	-	-	-	-	-	-	-	506	**506**
Horse and other equids	-	-	-	-	-	-	5,878	2,943	**8,821**
Other ungulate	271	23	-	-	52	476	23,407	19,556	**43,785**
Primate									
New World monkey	3	-	-	-	-	-	122	484	**609**
Old World monkey	-	-	-	-	-	6	1	211	**218**
Other mammal	-	-	-	-	-	-	-	1,669	**1,669**
Bird	69,563	-	-	-	-	958	1,850	35,515	**107,886**
Reptile / Amphibian	-	-	-	-	-	-	9,140	11,675	**20,815**
Fish	5,987	-	2	-	-	-	1,154	217,447	**224,590**
Total	**109,146**	**6,470**	**11,194**	**-**	**2,258**	**19,414**	**153,459**	**2,289,606**	**2,591,547**

(1) Includes breeding procedures which are now detailed in Tables 3.1 - 3.3 on the website

THERE IS NO TABLE FOR THIS PAGE

Table 9 Scientific procedures (toxicology) by species of animal and toxicological purpose, page 1 of 4
Previously Table 10

Great Britain 2006 **Number of procedures**

Species of animal	Toxicology or other safety/efficacy evaluation							
	General safety/efficacy evaluation							
	Pollution	Agriculture	Industry	Household	Food additives	Other foodstuffs	Finished cosmetics	Cosmetics ingredients
Mammal								
Mouse	328	3,806	7,307	-	-	7,346	-	-
Rat	-	11,127	17,641	-	4,038	131	-	-
Guinea pig	-	27	-	-	-	-	-	-
Hamster	-	-	16	-	-	-	-	-
Gerbil	-	-	-	-	-	-	-	-
Other rodent	-	61	-	-	-	-	-	-
Rabbit	-	416	1,225	-	-	-	-	-
Cat	-	-	-	-	-	-	-	-
Dog								
Beagle	-	94	11	-	-	-	-	-
Greyhound	-	-	-	-	-	-	-	-
Other including cross-bred dogs	-	-	-	-	-	-	-	-
Ferret	-	-	-	-	-	-	-	-
Other carnivore	-	-	-	-	-	-	-	-
Horse and other equids	-	-	-	-	-	-	-	-
Pig	-	-	-	-	-	-	-	-
Goat	-	2	-	-	-	-	-	-
Sheep	-	-	-	-	-	-	-	-
Cattle	-	33	-	-	-	-	-	-
Deer	-	-	-	-	-	-	-	-
Camelid	-	-	-	-	-	-	-	-
Other ungulate	-	-	-	-	-	-	-	-
Primate								
Prosimian	-	-	-	-	-	-	-	-
New World monkey								
marmoset, tamarin	-	-	-	-	-	-	-	-
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-
Other New World monkey	-	-	-	-	-	-	-	-

Table 9 Scientific procedures (toxicology) by species of animal and toxicological purpose, page 2 of 4

Previously Table 10

Great Britain 2006 **Number of procedures**

Species of animal	Toxicology or other safety/efficacy evaluation							
	General safety/efficacy evaluation							
	Pollution	Agriculture	Industry	Household	Food additives	Other foodstuffs	Finished cosmetics	Cosmetics ingredients
Old World monkey								
Macaque	-	-	-	-	-	-	-	-
Baboon	-	-	-	-	-	-	-	-
Other Old World monkey	-	-	-	-	-	-	-	-
Ape								
Gibbon	-	-	-	-	-	-	-	-
Great ape	-	-	-	-	-	-	-	-
Other mammal	-	-	-	-	-	-	-	-
Bird								
Domestic fowl (*Gallus domesticus*)	-	354	-	-	-	-	-	-
Turkey	-	-	-	-	-	-	-	-
Quail (*Coturnix coturnix*)	-	-	-	-	-	-	-	-
Quail (not *Coturnix coturnix*)	183	230	-	-	-	-	-	-
Other bird	-	180	-	-	-	-	-	-
Reptile								
Any reptilian species	-	-	-	-	-	-	-	-
Amphibian								
Any amphibian species	-	-	-	-	-	-	-	-
Fish								
Any fish species	18,678	6,212	2,473	-	-	-	-	-
Cephalopod								
Octopus vulgaris	-	-	-	-	-	-	-	-
Total	**19,189**	**22,542**	**28,673**	**-**	**4,038**	**7,477**	**-**	**-**
Increase on 2005	2,622	-10,223	4,806	-21	3,176	1,735	N/A	N/A
Percentage change from 2005	16%	-31%	20%	-100%	368%	30%	N/A	N/A
Percent of total for 2006	5%	5%	7%	<1%	<1%	2%	N/A	N/A

<1% Less than one percent.

N/A = No comparable figures for 2005

Table 9 Scientific procedures (toxicology) by species of animal and toxicological purpose, page 3 of 4

Previously Table 10

Great Britain 2006 **Number of procedures**

Species of animal	Toxicology or other safety/efficacy evaluation									Total
	Pharmaceutical safety/efficacy evaluation				Other purposes					
	Safety testing	Efficacy testing	Quality control	ADME and residue	Toxicology research	Tobacco safety	Medical device safety	Method development	Other	
Mammal										
Mouse	41,823	14,045	96,903	12,642	8,050	-	175	1,841	2,099	**196,365**
Rat	71,408	80	1,335	18,097	2,778	-	112	1,796	1,666	**130,209**
Guinea pig	1,645	1,634	4,227	410	65	-	-	16	-	**8,024**
Hamster	768	677	-	16	-	-	-	33	-	**1,510**
Gerbil	-	-	-	-	-	-	-	-	-	**-**
Other rodent	-	-	-	-	-	-	-	-	-	**61**
Rabbit	9,256	872	3,140	143	78	-	246	389	3	**15,768**
Cat	6	-	-	12	-	-	-	-	-	**18**
Dog										
Beagle	4,172	34	7	1,016	15	-	-	166	31	**5,546**
Greyhound	-	-	-	-	-	-	-	-	-	**-**
Other including cross-bred dogs	-	-	-	-	-	-	-	-	-	**-**
Ferret	-	-	-	11	-	-	-	-	-	**11**
Other carnivore	337	-	-	-	-	-	-	-	-	**337**
Horse and other equids	-	-	-	-	-	-	-	-	-	**-**
Pig	445	1,098	-	333	30	-	6	26	-	**1,938**
Goat	-	-	-	-	-	-	-	-	-	**2**
Sheep	158	190	8	4	-	-	-	3	-	**363**
Cattle	80	673	26	126	-	-	-	-	-	**938**
Deer	-	-	-	-	-	-	-	-	-	**-**
Camelid	-	-	-	-	-	-	-	-	-	**-**
Other ungulate	-	-	-	-	-	-	-	-	-	**-**
Primate										
Prosimian	-	-	-	-	-	-	-	-	-	**-**
New World monkey	-	-	-	-	-	-	-	-	-	**-**
marmoset, tamarin	255	-	-	24	-	-	-	-	33	**312**
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	**-**
Other New World monkey	-	-	-	-	-	-	-	-	-	**-**

Table 9 Scientific procedures (toxicology) by species of animal and toxicological purpose, page 4 of 4
Previously Table 10

Great Britain 2006 **Number of procedures**

Species of animal	Toxicology or other safety/efficacy evaluation									Total
	Pharmaceutical safety/efficacy evaluation				Other purposes					
	Safety testing	Efficacy testing	Quality control	ADME and residue	Toxicology research	Tobacco safety	Medical device safety	Method development	Other	
Old World monkey										
Macaque	2,181	-	-	444	-	-	-	380	60	**3,065**
Baboon	-	-	-	-	-	-	-	-	-	**-**
Other Old World monkey	-	-	-	-	-	-	-	-	-	**-**
Ape										
Gibbon	-	-	-	-	-	-	-	-	-	**-**
Great ape	-	-	-	-	-	-	-	-	-	**-**
Other mammal	-	-	-	-	-	-	-	-	-	**-**
Bird										
Domestic fowl (*Gallus domesticus*)	894	4,230	233	238	-	-	-	-	-	**5,949**
Turkey	-	-	-	-	-	-	-	-	-	**-**
Quail (*Coturnix coturnix*)	-	-	-	-	-	-	-	-	-	**-**
Quail (not *Coturnix coturnix*)	-	-	-	-	-	-	-	-	-	**413**
Other bird	-	-	-	-	-	-	-	-	-	**180**
Reptile										
Any reptilian species	-	-	-	-	-	-	-	-	-	**-**
Amphibian										
Any amphibian species	-	-	-	-	-	-	-	-	-	**-**
Fish										
Any fish species	8,647	5,679	-	-	2,022	-	-	5,765	-	**49,476**
Cephalopod										
Octopus vulgaris	-	-	-	-	-	-	-	-	-	-
Total	**142,075**	**29,212**	**105,879**	**33,516**	**13,038**	**-**	**539**	**10,415**	**3,892**	**420,485**
Increase on 2005	-3,446	-2,657	27,824	3,776	-2,367	N/A	-385	3,883	-1,352	27,371
Percentage change from 2005	-2%	-8%	36%	13%	-15%	N/A	-42%	59%	-26%	7%
Percent of total for 2006	34%	7%	25%	8%	3%	N/A	<1%	2%	<1%	100%

<1% Less than one percent.
N/A = No comparable figures for 2005

Table 9a Animals (toxicology) by species of animal and toxicological purpose, page 1 of 4

Previously Table 10a

Great Britain 2006 **Number of animals**

Species of animal	Toxicology or other safety/efficacy evaluation							
	General safety/efficacy evaluation							
	Pollution	Agriculture	Industry	Household	Food additives	Other foodstuffs	Finished cosmetics	Cosmetics ingredients
Mammal								
Mouse	328	3,806	7,307	-	-	7,346	-	-
Rat	-	11,127	17,641	-	4,038	131	-	-
Guinea pig	-	27	-	-	-	-	-	-
Hamster	-	-	16	-	-	-	-	-
Gerbil	-	-	-	-	-	-	-	-
Other rodent	-	61	-	-	-	-	-	-
Rabbit	-	415	1,219	-	-	-	-	-
Cat	-	-	-	-	-	-	-	-
Dog								
Beagle	-	90	9	-	-	-	-	-
Greyhound	-	-	-	-	-	-	-	-
Other including cross-bred dogs	-	-	-	-	-	-	-	-
Ferret	-	-	-	-	-	-	-	-
Other carnivore	-	-	-	-	-	-	-	-
Horse and other equids	-	-	-	-	-	-	-	-
Pig	-	-	-	-	-	-	-	-
Goat	-	2	-	-	-	-	-	-
Sheep	-	-	-	-	-	-	-	-
Cattle	-	33	-	-	-	-	-	-
Deer	-	-	-	-	-	-	-	-
Camelid	-	-	-	-	-	-	-	-
Other ungulate	-	-	-	-	-	-	-	-
Primate								
Prosimian	-	-	-	-	-	-	-	-
New World monkey								
marmoset, tamarin	-	-	-	-	-	-	-	-
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-
Other New World monkey	-	-	-	-	-	-	-	-

Table 9a Animals (toxicology) by species of animal and toxicological purpose, page 2 of 4

Previously Table 10a

Great Britain 2006 **Number of animals**

Species of animal	Toxicology or other safety/efficacy evaluation							
	General safety/efficacy evaluation							
	Pollution	Agriculture	Industry	Household	Food additives	Other foodstuffs	Finished cosmetics	Cosmetics ingredients
Old World monkey								
Macaque	-	-	-	-	-	-	-	-
Baboon	-	-	-	-	-	-	-	-
Other Old World monkey	-	-	-	-	-	-	-	-
Ape								
Gibbon	-	-	-	-	-	-	-	-
Great ape	-	-	-	-	-	-	-	-
Other mammal	-	-	-	-	-	-	-	-
Bird								
Domestic fowl (*Gallus domesticus*)	-	354	-	-	-	-	-	-
Turkey	-	-	-	-	-	-	-	-
Quail (*Coturnix coturnix*)	-	-	-	-	-	-	-	-
Quail (not *Coturnix coturnix*)	183	230	-	-	-	-	-	-
Other bird	-	180	-	-	-	-	-	-
Reptile								
Any reptilian species	-	-	-	-	-	-	-	-
Amphibian								
Any amphibian species	-	-	-	-	-	-	-	-
Fish								
Any fish species	18,675	6,212	2,473	-	-	-	-	-
Cephalopod								
Octopus vulgaris	-	-	-	-	-	-	-	-
Total	**19,186**	**22,537**	**28,665**	**-**	**4,038**	**7,477**	**-**	**-**

Table 9a Animals (toxicology) by species of animal and toxicological purpose, page 3 of 4

Previously Table 10a

Great Britain 2006 **Number of animals**

Species of animal	Toxicology or other safety/efficacy evaluation									Total
	Pharmaceutical safety/efficacy evaluation				Other purposes					
	Safety testing	Efficacy testing	Quality control	ADME and residue	Toxicology research	Tobacco safety	Medical device safety	Method development	Other	
Mammal										
Mouse	41,823	14,045	96,903	12,642	8,050	-	175	1,841	2,099	**196,365**
Rat	71,345	73	1,335	18,097	2,778	-	112	1,790	1,664	**130,131**
Guinea pig	1,645	1,634	4,227	410	65	-	-	16	-	**8,024**
Hamster	768	677	-	16	-	-	-	33	-	**1,510**
Gerbil	-	-	-	-	-	-	-	-	-	**-**
Other rodent	-	-	-	-	-	-	-	-	-	**61**
Rabbit	5,876	872	187	131	78	-	80	92	3	**8,953**
Cat	1	-	-	12	-	-	-	-	-	**13**
Dog										
Beagle	3,769	28	2	234	15	-	-	67	29	**4,243**
Greyhound	-	-	-	-	-	-	-	-	-	**-**
Other including cross-bred dogs	-	-	-	-	-	-	-	-	-	**-**
Ferret	-	-	-	11	-	-	-	-	-	**11**
Other carnivore	337	-	-	-	-	-	-	-	-	**337**
Horse and other equids	-	-	-	-	-	-	-	-	-	**-**
Pig	419	1,062	-	332	30	-	6	26	-	**1,875**
Goat	-	-	-	-	-	-	-	-	-	**2**
Sheep	158	190	8	4	-	-	-	-	-	**360**
Cattle	78	643	26	124	-	-	-	-	-	**904**
Deer	-	-	-	-	-	-	-	-	-	**-**
Camelid	-	-	-	-	-	-	-	-	-	**-**
Other ungulate	-	-	-	-	-	-	-	-	-	**-**
Primate										
Prosimian	-	-	-	-	-	-	-	-	-	**-**
New World monkey										
marmoset, tamarin	255	-	-	11	-	-	-	-	33	**299**
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	**-**
Other New World monkey	-	-	-	-	-	-	-	-	-	**-**

Table 9a Animals (toxicology) by species of animal and toxicological purpose, page 4 of 4

Previously Table 10a

Great Britain 2006 **Number of animals**

Species of animal	Toxicology or other safety/efficacy evaluation									Total
	Pharmaceutical safety/efficacy evaluation				Other purposes					
	Safety testing	Efficacy testing	Quality control	ADME and residue	Toxicology research	Tobacco safety	Medical device safety	Method development	Other	
Old World monkey										
Macaque	1,840	-	-	119	-	-	-	317	58	**2,334**
Baboon	-	-	-	-	-	-	-	-	-	**-**
Other Old World monkey	-	-	-	-	-	-	-	-	-	**-**
Ape										
Gibbon	-	-	-	-	-	-	-	-	-	**-**
Great ape	-	-	-	-	-	-	-	-	-	**-**
Other mammal	-	-	-	-	-	-	-	-	-	**-**
Bird										
Domestic fowl (*Gallus domesticus*)	894	4,230	233	238	-	-	-	-	-	**5,949**
Turkey	-	-	-	-	-	-	-	-	-	**-**
Quail (*Coturnix coturnix*)	-	-	-	-	-	-	-	-	-	**-**
Quail (not *Coturnix coturnix*)	-	-	-	-	-	-	-	-	-	**413**
Other bird	-	-	-	-	-	-	-	-	-	**180**
Reptile										
Any reptilian species	-	-	-	-	-	-	-	-	-	**-**
Amphibian										
Any amphibian species	-	-	-	-	-	-	-	-	-	**-**
Fish										
Any fish species	8,647	5,679	-	-	2,022	-	-	5,765	-	**49,473**
Cephalopod										
Octopus vulgaris	-	-	-	-	-	-	-	-	-	-
Total	**137,855**	**29,133**	**102,921**	**32,381**	**13,038**	**-**	**373**	**9,947**	**3,886**	**411,437**

Table 10 Scientific procedures (toxicology) by species of animal, type of legislation and purpose

Summary version - Previously Table 11

Great Britain 2006 **Number of procedures**

Species of animal	UK requirements only	One EU country only (not UK)	EU requirements, incl. European Pharmacopoeia	Requirements of (non-EU) Council of Europe	Requirements of other countries	Any combination of legislative requirements	Non-legislative purposes	Total
Mammal								
Mouse	3,190	17	16,570	-	659	153,663	22,266	196,365
Rat	336	102	6,655	-	4,465	103,336	15,315	**130,209**
Other rodent	3,624	-	1,969	-	194	3,290	518	**9,595**
Rabbit	1,210	3	4,924	-	189	9,300	142	**15,768**
Cat	-	-	6	-	12	-	-	**18**
Dog	-	-	-	-	-	4,891	655	**5,546**
Ferret	-	-	-	-	-	11	-	**11**
Other carnivore	337	-	-	-	-	-	-	**337**
Horse and other equids	-	-	-	-	-	-	-	**-**
Other ungulate	60	-	1,405	-	20	1,384	372	**3,241**
Primate								
New World monkey	-	-	-	-	-	299	13	**312**
Old World monkey	-	-	-	-	-	2,977	88	**3,065**
Other mammal	-	-	-	-	-	-	-	**-**
Bird	136	24	611	-	125	5,351	295	**6,542**
Reptile / Amphibian	-	-	-	-	-	-	-	**-**
Fish	1,631	10	10,357	-	1,086	17,430	18,962	**49,476**
Total	**10,524**	**156**	**42,497**	**-**	**6,750**	**301,932**	**58,626**	**420,485**

Table 11 Scientific procedures (toxicology) by species of animal and type of toxicological test: all purposes, page 1 of 2

Previously Table 12

Great Britain 2006 **Number of procedures**

Species of animal	Type of toxicological test or procedure									
	Acute lethal toxicity	Acute lethal concentration	Acute limit setting	Acute non - lethal clinical sign	Subacute limit-setting or dose ranging	Subacute toxicity	Subchronic and chronic	Carcinogenicity	Genetic toxicology (includes mutagenicity)	Teratogenicity
Mammal										
Mouse	90,825	820	9,321	2,207	4,744	5,294	5,081	6,393	3,422	222
Rat	72	2,242	2,472	8,500	8,504	15,031	12,873	6,956	5,813	2,817
Other rodent	65	-	6	77	88	-	200	-	16	-
Rabbit	-	-	-	129	354	154	120	-	-	3,714
Cat	-	-	-	6	-	-	-	-	-	-
Dog	-	-	-	179	590	1,362	1,387	-	-	-
Ferret	-	-	-	-	-	-	-	-	-	-
Other carnivore	-	-	-	-	-	-	-	-	-	-
Horse and other equids	-	-	-	-	-	-	-	-	-	-
Other ungulate	-	-	-	15	22	160	136	-	-	-
Primate										
New World monkey	-	-	-	20	15	108	86	-	-	-
Old World monkey	-	-	-	30	396	626	818	-	-	-
Other mammal	-	-	-	-	-	-	-	-	-	-
Bird	-	-	4	40	60	390	-	-	-	-
Reptile / Amphibian	-	-	-	-	-	-	-	-	-	-
Fish	-	8,107	14,192	-	1,463	9,646	2,160	-	-	-
Total	**90,962**	**11,169**	**25,995**	**11,203**	**16,236**	**32,771**	**22,861**	**13,349**	**9,251**	**6,753**

Table 11 Scientific procedures (toxicology) by species of animal and type of toxicological test: all purposes, page 2 of 2

Previously Table 12

Great Britain 2006 **Number of procedures**

Species of animal	Type of toxicological test or procedure										Total
	Other reproductive toxicity	In eyes	For skin Irritation	For skin sensitisation	Toxicokinetics	Pyrogenicity	Biocompatibility	Enzyme induction for *in vitro* tests	Immunotoxicology	Other toxicology	
Mammal											
Mouse	630	-	7	2,640	13,016	-	175	-	5,762	45,806	**196,365**
Rat	27,867	8	-	-	15,045	-	112	187	116	21,594	**130,209**
Other rodent	-	-	18	4	236	-	-	-	70	8,815	**9,595**
Rabbit	58	580	1,082	-	154	8,087	80	-	18	1,238	**15,768**
Cat	-	-	-	-	12	-	-	-	-	-	**18**
Dog	-	-	-	-	657	-	-	-	-	1,371	**5,546**
Ferret	-	-	-	-	-	-	-	-	-	11	**11**
Other carnivore	-	-	-	-	-	-	-	-	-	337	**337**
Horse and other equids	-	-	-	-	-	-	-	-	-	-	**-**
Other ungulate	48	-	-	-	255	-	18	-	24	2,563	**3,241**
Primate											
New World monkey	-	-	-	-	26	-	-	-	-	57	**312**
Old World monkey	-	-	-	-	361	-	-	-	16	818	**3,065**
Other mammal	-	-	-	-	-	-	-	-	-	-	**-**
Bird	120	-	-	-	210	-	-	-	-	5,718	**6,542**
Reptile / Amphibian	-	-	-	-	-	-	-	-	-	-	**-**
Fish	1,120	-	-	-	-	-	-	2	-	12,786	**49,476**
Total	**29,843**	**588**	**1,107**	**2,644**	**29,972**	**8,087**	**385**	**189**	**6,006**	**101,114**	**420,485**

APPENDIX D

PREVIOUS RETURNS

Annual publications giving detailed figures for scientific procedures under the Animals (Scientific Procedures) Act 1986 were published (by HMSO) as "Statistics of scientific procedures on living animals" as follows:

Year	Command Paper	Year	Command Paper
2005	Cm 6877	1995	Cm 3516
2004	Cm 6713	1994	Cm 3012
2003	Cm 6291	1993	Cm 2746
2002	Cm 5886	1992	Cm 2356
2001	Cm 5581	1991	Cm 2023
2000	Cm 5244	1990	Cm 1574
1999	Cm 4841	1989	Cm 1152
1998	Cm 4418	1988	Cm 743
1997	Cm 4025	1987	Cm 515
1996	Cm 3722		

Detailed figures for experiments on living animals under the Cruelty to Animals Act 1876 were published (by HMSO) as "Statistics of experiments on living animals" as follows:

Year	Command Paper	Year	Command Paper
1986	Cm 187	1981	Cmnd 8657
1985	Cmnd 9839	1980	Cmnd 8301
1984	Cmnd 9574	1979	Cmnd 8069
1983	Cmnd 9311	1978	Cmnd 7628
1982	Cmnd 8986	1977	Cmnd 7333

Less detailed information about experiments on living animals for the years prior to 1977 was published in the form of a "Return to an Address of the Honourable the House of Commons".

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The Home Office would welcome comments from users on how well this publication meets their needs, and will consider any suggestions for improving it in future years. Comments and suggestions should be sent to the address below by 31 March 2008 if they are to be taken into account in time for the next publication (covering procedures started in 2007).

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