

# 2009 Statistical Report on the use of Animals for Experimental and other Scientific purposes in Ireland.

## Licences and Certificates valid year ending 31 December 2009

Licences by category:

Without Certificate	28
Certificate A	613
Certificate B	566
Certificate C	30
Certificate D	2
Certificate E	18
Certificate EE	19
Certificate F	27
Certificate G	2

**Note:** If the licence is held alone without Certificate, the animal must be kept in anaesthesia throughout the whole of the experiment, and if the pain is likely to continue after the effect of the anaesthetic has ceased, or if any serious injury has been inflicted on the animal, it must be killed before the anaesthesia has passed off.

Certificate A	dispenses altogether from the obligation to use anaesthetic. It will be necessary in cases of simple inoculation calculated to give pain but not involving any surgical operation.
Certificate B	dispenses altogether from the obligation to kill the animal before the anaesthetic has passed off, it is necessary therefore whenever the initial operation is to be done under anaesthetics, but the animal is to be allowed to survive.
Certificate C	is necessary for experiments illustrating lectures.
Certificate D	is necessary where setting the animal free is necessary for the legitimate purposes of the experiment
Certificate E	is never held alone, but is necessary whenever an experiment is to be performed on a Dog or Cat under Certificate A.
Certificate EE	is never held alone, but is necessary whenever an experiment is to be performed on a Dog or Cat under Certificate B.
Certificate F	is necessary whenever an experiment is to be performed on a Horse, Ass or Mule.
Certificate G	is necessary where an experiment may require the animal to experience severe pain that is likely to be prolonged.

TABLE 1: NUMBER OF ANIMALS USED IN RELATION TO THEIR PLACE OF ORIGIN

Origin versus species							
1.1 Species	1.2 Total	1.3 Animals coming from registered breeding or supplying establishments within the reporting country	1.4 Animals coming from elsewhere in the EC	1.5 Animals coming from Member Countries of the Council of Europe which are parties to the Convention ETS 123 (excluding EC Member States)	1.6 Animals coming from other origins	1.7 Re-used animals	
1.a. Mice ( <i>Mus musculus</i> )	209,903	12,534	191,825	1,226	4318	0	
1.b. Rats ( <i>Rattus norvegicus</i> )	16,198	1,323	11,938	2,937	0	0	
1.c. Guinea-Pigs ( <i>Cavia porcellus</i> )	477	0	477	0	0	0	
1.d. Hamsters ( <i>Mesocricetus</i> )	0						
1.e. Other Rodents (other <i>Rodentia</i> )	0						
1.f. Rabbits ( <i>Oryctolagus cuniculus</i> )	138	5	122	11	0	0	
1.g. Cats ( <i>Felis catus</i> )	202	202	0	0	0	68	
1.h. Dogs ( <i>Canis familiaris</i> )	653	653	0	0	0	94	
1.i. Ferrets ( <i>Mustela putorius furo</i> )	0						
1.j. Other Carnivores (other <i>Carnivora</i> )	0						
1.k. Horses, donkeys and cross breeds ( <i>Equidae</i> )	40	40	0	0	0	0	
1.l. Pigs ( <i>Sus</i> )	325	309	16	0	0	0	
1.m. Goats ( <i>Capra</i> )	0						
1.n. Sheep ( <i>Ovis</i> )	24	0	0	0	24	0	
1.o. Cattle ( <i>Bos</i> )	1,326	1326	0	0	0	0	
1.p. Prosimians ( <i>Prosimia</i> )	0						
1.q. New World Monkey ( <i>Ceboidea</i> )	0						
1.r. Old World Monkeys ( <i>Cercopithecoidea</i> )	0						
1.s. Apes ( <i>Hominoidea</i> )	0						
1.t. Other Mammals (other <i>Mammalia</i> )	389	0	0	0	389	0	
1.u. Quail ( <i>Coturnix coturnix</i> )	0						
1.v. Other birds (other <i>Aves</i> )	345	344	1	0	0	0	
1.w. Reptiles ( <i>Reptilia</i> )	0						
1.x. Amphibians ( <i>Amphibia</i> )	0						
1.y. Fish ( <i>Pisces</i> )	19,186	199	0	0	18987	0	
1.z. TOTAL	249,206	16,935	204,379	4,174	23,718	162	

**TABLE 2: NUMBER OF ANIMALS USED IN EXPERIMENTS FOR SELECTED PURPOSES**

Purpose versus species										
2.1 Species	2.2 Biological studies of a fundamental nature	2.3 Research and development of products and devices for human medicine and dentistry and for veterinary medicine(excluding toxicological and other safety evaluations counted in column 2.6)	2.4 Production and quality control of products and devices for human medicine and dentistry	2.5 Production and quality control of products and devices for veterinary medicine	2.6 Toxicological and other safety evaluations (including safety evaluation of products and devices for human medicine and dentistry and for veterinary medicine	2.7 Diagnosis of disease	2.8 Education and training	2.9 Other	2.10 Total	
2.a. Mice	12,688	2,191	28	0	193,335	782	18	861	209,903	
2.b. Rats	5,247	3,377	0	0	7,410	0	32	132	16,198	
2.c. Guinea-Pigs	0	0	0	0	477	0	0	0	477	
2.d. Hamsters									0	
2.e. Other Rodents									0	
2.f. Rabbits	14	14	0	0	110	0	0	0	138	
2.g. Cats	0	70	0	28	104	0	0	0	202	
2.h. Dogs	0	531	0	0	92	30	0	0	653	
2.i. Ferrets									0	
2.j. Other Carnivores									0	
2.k. Horses, donkeys and cross breeds	0	0	0	0	32	0	0	8	40	
2.l. Pigs	168	5	0	0	104	0	0	48	325	
2.m. Goats									0	
2.n. Sheep	24	0	0	0	0	0	0	0	24	
2.o. Cattle	463	16	0	0	0	0	630	217	1,326	
2.p. Prosimians									0	
2.q. New World Monkeys									0	
2.r. Old World Monkeys									0	
2.s. Apes									0	
2.t. Other Mammals	194	195	0	0	0	0	0	0	389	
2.u. Quail									0	
2.v. Other birds	3	341	0	1	0	0	0	0	345	
2.w. Reptiles									0	
2.x. Amphibians									0	
2.y. Fish	204	0	0	0	0	5	0	18,977	19,186	
2.z. TOTAL	19,005	6,740	28	29	201,664	817	680	20,243	249,206	

**TABLE 3: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATION**

		Products versus species									
3.1 Species		3.2 Products/ substances or devices for human medicine and dentistry and for veterinary medicine	3.3 Products/ substances used or intended to be used mainly in agriculture	3.4 Products/ substances used or intended to be used mainly in industry	3.5 Products/ substances used or intended to be used mainly in the household	3.6 Products/ substances used or intended to be used mainly as cosmetics or toiletries	3.7 Products/ substances used or intended to be used mainly as additives in food for human consumption	3.8 Products/ substances used or intended to be used mainly as additives in food for animal consumption	3.9 Potential or actual contaminants in the general environment which do not appear in other columns	3.10 Other toxicological or safety evaluations	3.11 Total
3.a.	Mice	187,943	0	0	0	0	0	0	0	5,392	193,335
3.b.	Rats	7,410	0	0	0	0	0	0	0	0	7,410
3.c.	Guinea-Pigs	477	0	0	0	0	0	0	0	0	477
3.d.	Hamsters										0
3.e.	Other Rodents										0
3.f.	Rabbits	110	0	0	0	0	0	0	0	0	110
3.g.	Cats	104	0	0	0	0	0	0	0	0	104
3.h.	Dogs	92	0	0	0	0	0	0	0	0	92
3.i.	Ferrets										0
3.j.	Other Carnivores										0
3.k.	Horses, donkeys and cross breeds	32	0	0	0	0	0	0	0	0	32
3.l.	Pigs	0	104	0	0	0	0	0	0	0	104
3.m.	Goats										0
3.n.	Sheep										0
3.o.	Cattle										0
3.p.	Prosimians										0
3.q.	New World Monkeys										0
3.r.	Old World Monkeys										0
3.s.	Apes										0
3.t.	Other Mammals										0
3.u.	Quail										0
3.v.	Other birds										0
3.w.	Reptiles										0
3.x.	Amphibians										0
3.y.	Fish										0
3.z.	TOTAL	196,168	104	0	0	0	0	0	0	5,392	201,664

**TABLE 4: NUMBER OF ANIMALS USED IN EXPERIMENTS FOR STUDIES ON HUMAN AND ANIMAL DISEASES**

Main categories versus species							
4.1 Species		4.2 Human cardiovascular diseases	4.3 Human nervous and mental disorders	4.4 Human cancer (excluding evaluations of carcinogenic hazards or risks)	4.5 Other human diseases	4.6 Studies specific to animal diseases	4.7 Total
4.a.	Mice	1,323	5,527	1,154	7,657	0	15,661
4.b.	Rats	1,002	6,396	0	1,082	144	8,624
4.c.	Guinea-Pigs						0
4.d.	Hamsters						0
4.e.	Other Rodents						0
4.f.	Rabbits	12	0	0	16	0	28
4.g.	Cats	0	0	0	0	70	70
4.h.	Dogs	0	0	0	0	561	561
4.i.	Ferrets						0
4.j.	Other Carnivores						0
4.k.	Horses, donkeys and cross breeds						0
4.l.	Pigs	151	0	0	22	0	173
4.m.	Goats						0
4.n.	Sheep	0	0	0	0	24	24
4.o.	Cattle	0	0	0	0	479	479
4.p.	Prosimians						0
4.q.	New World Monkeys						0
4.r.	Old World Monkeys						0
4.s.	Apes						0
4.t.	Other Mammals	0	0	0	0	389	389
4.u.	Quail						0
4.v.	Other birds	3	0	0	6	335	344
4.w.	Reptiles						0
4.x.	Amphibians						0
4.y.	Fish	0	114	0	85	10	209
4.z.	TOTAL	2,491	12,037	1,154	8,868	2,012	26,562

**TABLE 5: NUMBER OF ANIMALS USED IN PRODUCTION AND QUALITY CONTROL OF PRODUCTS AND DEVICES FOR HUMAN MEDICINE AND DENTISTRY AND FOR VETERINARY MEDICINE**

Regulatory requirements versus species								
5.1 Species		5.2 National legislation specific to a single EC Member State1)	5.3 EC legislation including European Pharmacopoeia (requirements)	5.4 Member Country of Council of Europe (but not EC) legislation2)	5.5 Other legislation	5.6 Any combination of 5.2/ 5.3/ 5.4/ 5.5	5.7 No regulatory requirements	5.8 Total
5.a.	Mice	28	0	0	0	0	0	28
5.b.	Rats							0
5.c.	Guinea-Pigs							0
5.d.	Hamsters							0
5.e.	Other Rodents							0
5.f.	Rabbits							0
5.g.	Cats	28	0	0	0	0	0	28
5.h.	Dogs							0
5.i.	Ferrets							0
5.j.	Other Carnivores							0
5.k.	Horses, donkeys and cross breeds							0
5.l.	Pigs							0
5.m.	Goats							0
5.n.	Sheep							0
5.o.	Cattle							0
5.p.	Prosimians							0
5.q.	New World Monkeys							0
5.r.	Old World Monkeys							0
5.s.	Apes							0
5.t.	Other Mammals							0
5.u.	Quail							0
5.v.	Other birds	0	0	0	0	0	1	1
5.w.	Reptiles							0
5.x.	Amphibians							0
5.y.	Fish							0
5.z.	TOTAL	56	0	0	0	0	1	57

**TABLE 6: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS**

Regulatory requirements versus species								
6.1 Species		6.2 National legislation specific to a single EC Member State(1)	6.3 EC legislation including European Pharmacopoeia (requirements)	6.4 Member Country of Council of Europe (but not EC) legislation(2))	6.5 Other legislation	6.6 Any combination of 5.2/ 5.3/ 5.4/ 5.5	6.7 No regulatory requirements	6.8 Total
6.a.	Mice	0	3,018	0	0	190,317	0	193,335
6.b.	Rats	0	0	0	0	7,410	0	7,410
6.c.	Guinea-Pigs	0	0	0	0	477	0	477
6.d.	Hamsters							0
6.e.	Other Rodents							0
6.f.	Rabbits	0	0	0	0	110	0	110
6.g.	Cats	40	32	0	0	32	0	104
6.h.	Dogs	92	0	0	0	0	0	92
6.i.	Ferrets							0
6.j.	Other Carnivores							0
6.k.	Horses, donkeys and cross breeds	0	0	0	0	32	0	32
6.l.	Pigs	0	0	0	0	0	104	104
6.m.	Goats							0
6.n.	Sheep							0
6.o.	Cattle							0
6.p.	Prosimians							0
6.q.	New World Monkeys							0
6.r.	Old World Monkeys							0
6.s.	Apes							0
6.t.	Other Mammals							0
6.u.	Quail							0
6.v.	Other birds							0
6.w.	Reptiles							0
6.x.	Amphibians							0
6.y.	Fish							0
6.z.	TOTAL	132	3,050	0	0	198,378	104	201,664

TABLE 7: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS

7.1. Species		Types of tests versus species														
		7.2 Acute and sub-acute toxicity testing methods (including limit test)			7.3 Skin irritation	7.4 Skin sensitisation	7.5 Eye irritation	7.6 Sub-chronic and chronic toxicity	7.7 Carcinogenicity	7.8 Developmental toxicity	7.9 Mutagenicity	7.10 Reproductive toxicity	7.11 Toxicity to aquatic vertebrates not included in other columns	7.12 Other	7.13	Total
		7.2.1. LD50, LC50	7.2.2 Other lethal methods	7.2.3 Non lethal clinical signs methods												
7.a.	Mice	146,764	0	0	0	0	0	0	0	0	0	0	0	46,571	193,335	
7.b.	Rats	0	0	0	0	0	0	0	0	0	0	0	0	7,410	7,410	
7.c.	Guinea-Pigs	0	0	0	0	0	0	0	0	0	0	0	0	477	477	
7.d.	Hamsters														0	
7.e.	Other Rodents														0	
7.f.	Rabbits	0	0	0	0	0	0	0	0	0	0	0	0	110	110	
7.g.	Cats	0	0	0	0	0	0	0	0	0	0	0	0	104	104	
7.h.	Dogs	0	0	0	0	0	0	0	0	0	0	0	0	92	92	
7.i.	Ferrets														0	
7.j.	Other Carnivores														0	
7.k.	Horses, donkeys and cross breeds	0	0	0	0	0	0	0	0	0	0	0	0	32	32	
7.l.	Pigs	0	0	0	0	0	0	0	0	0	0	0	0	104	104	
7.m.	Goats														0	
7.n.	Sheep														0	
7.o.	Cattle														0	
7.p.	Prosimians														0	
7.q.	New World Monkeys														0	
7.r.	Old World Monkeys														0	
7.s.	Apes														0	
7.t.	Other Mammals														0	
7.u.	Quail														0	
7.v.	Other birds														0	
7.w.	Reptiles														0	
7.x.	Amphibians														0	
7.y.	Fish														0	
7.z.	<b>TOTAL</b>	<b>146,764</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>54,900</b>	<b>201,664</b>	



**TABLE 8: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS**

Types of tests versus products														
8.1. Products	8.2 Acute and sub-acute toxicity testing methods (including limit test)			8.3 Skin irritation	8.4 Skin sensitisation	8.5 Eye irritation	8.6 Sub-chronic and chronic toxicity	8.7 Carcinogenicity	8.8 Developmental toxicity	8.9 Mutagenicity	8.10 Reproductive toxicity	8.11 Toxicity to aquatic vertebrates not included in other columns	8.12 Other	8.13 Total
	8.2.1. LD50, LC50	8.2.2 Other lethal methods	8.2.3 Non lethal clinical signs methods											
8.a. Products/ substances or devices for human medicine and dentistry and for veterinary medicine	32												164	196
8.b. Products/ substances used or intended to be used mainly in agriculture													136	136
8.c. Products/ substances used or intended to be used mainly in industry													32	32
8.d. Products/ substances used or intended to be used mainly in the household														0
8.e. Products/ substances used or intended to be used mainly as cosmetics or toiletries														0
8.f. Products/ substances used or intended to be used mainly as additives in food for human consumption														0
8.g. Products/ substances used or intended to be used mainly as additives in food for animal consumption														0
8.h. Potential or actual contaminants in the general environment which do not appear in other columns														0
8.i. Other toxicological or safety evaluations	146,732												54,568	201,300
<b>8.j. TOTAL</b>	<b>146,764</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>54,900</b>	<b>201,664</b>

**TABLE 9: NUMBER OF ANIMALS USED IN RELATION TO CERTIFICATES GRANTED**

		Origin versus species				
9.1 Species		9.2 With anaesthesia (Licence only)	9.3 With anaesthesia (Licence A)	9.4 With anaesthesia but with permitted recovery (Certificate B)	9.5 Demonstrations (Certificate C)	9.6 Total
9.a.	Mice	13,696	191,817	4,390	0	209,903
9.b.	Rats	9,310	4,372	2,516	0	16,198
9.c.	Guinea-Pigs	150	327	0	0	477
9.d.	Hamsters					0
9.e.	Other Rodents					0
9.f.	Rabbits	0	113	25	0	138
9.g.	Cats	0	202	0	0	202
9.h.	Dogs	0	583	70	0	653
9.i.	Ferrets					0
9.j.	Other Carnivores					0
9.k.	Horses, donkeys and cross breeds	0	8	32	0	40
9.l.	Pigs	96	128	101	0	325
9.m.	Goats					0
9.n.	Sheep	0	24	0	0	24
9.o.	Cattle	58	1,268	0	0	1,326
9.p.	Prosimians					0
9.q.	New World Monkeys					0
9.r.	Old World Monkeys					0
9.s.	Apes					0
9.t.	Other Mammals	0	0	389	0	389
9.u.	Quail					0
9.v.	Other birds	4	341	0	0	345
9.w.	Reptiles					0
9.x.	Amphibians					0
9.y.	Fish	19,067	10	109	0	19,186
9.z.	<b>TOTAL</b>	<b>42,381</b>	<b>199,193</b>	<b>7,632</b>	<b>0</b>	<b>249,206</b>

**TABLE 10: GENETIC STATUS**

10.1 Species		10.2 With genetic defect	10.3 Transgenic	10.4 Total
10.a	Mice	1,013	41	1,054
10.b	Rats	0	3,732	3,732
10.c	Fish	8	170	178
10.d	<b>Total</b>	<b>1,021</b>	<b>3,943</b>	<b>4,964</b>

TABLE 11: NUMBER OF ANIMALS USED BY CATEGORY OF USER ESTABLISHMENT

Laboratory versus species						
11.1 Species	11.2 Universities & Colleges	11.3 Hospitals	11.4 Agriculture and veterinary research institutes	11.5 Fisheries research institutes and farms	11.6 Commercial establishments	11.7 Total
11.a. Mice	15,469	441		2,986	191,007	209,903
11.b. Rats	6,219	49			9,930	16,198
11.c. Guinea-Pigs					477	477
11.d. Hamsters						0
11.e. Other Rodents						0
11.f. Rabbits	28				110	138
11.g. Cats			24		178	202
11.h. Dogs			132		521	653
11.i. Ferrets						0
11.j. Other Carnivores						0
11.k. Horses, donkeys and cross breeds	8				32	40
11.l. Pigs	151	22	152			325
11.m. Goats						0
11.n. Sheep			24			24
11.o. Cattle	25		1,301			1,326
11.p. Prosimians						0
11.q. New World Monkeys						0
11.r. Old World Monkeys						0
11.s. Apes						0
11.t. Other Mammals			389			389
11.u. Quail						0
11.v. Other birds	1		335		9	345
11.w. Reptiles						0
11.x. Amphibians						0
11.y. Fish	209			18,977		19,186
11.z. TOTAL	22,110	512	2,357	21,963	202,264	249,206

**TABLE 12: The number and species of live animals used in scientific procedures in the years 1994 -1999, 2002 and 2005-2009**

<b>SPECIES</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2002</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
MICE	18,535	21,963	26,735	26,795	23,032	31,251	16,790	17,776	21,152	26,111	71,224	209,903
RATS	13,456	16,637	24,474	21,591	18,814	14,484	8,282	7,722	10,314	12,792	11,741	16,198
GUINEA PIGS	1,400	2,665	1,531	1,576	1,387	1,041	35	4	25	5	91	477
HAMSTERS	0	0	0	0	0	0	6	0	60	55	68	0
OTHER RODENTS	385	164	118	113	165	133	0	0	0	0	0	0
RABBITS	1,945	2,484	2,067	579	805	915	130	379	101	43	204	138
CATS	60	60	181	138	74	129	46	119	169	421	295	202
DOGS	245	172	332	153	190	312	195	167	297	477	557	643
FERRETS							21		4	0		0
HORSES, DONKEYS & CROSSBREEDS	94	29	199	85	102	192	19	189	182	153	144	40
PIGS	180	133	124	96	276	844	65	382	189	190	224	325
GOATS	0	0	0	0	0	0	2	0	0	22	0	0
SHEEP	786	1,164	1,010	655	951	1,472	1,656	601	331	370	456	24
CATTLE	2,593	1,217	1,196	2,057	2,072	1,862	3,778	2,109	4,689	2,152	4,019	1,326
OTHER MAMMALS	0	12	0	0	0	13	132	48	61	38	32	389
BIRDS	48	86	94	59	1,174	1,229	0	2,024	69	1,016	582	345
AMPHIBIANS	0	0	0	0	0	0	0	0	0	14	0	0
FISH	9,076	9,820	19,021	20,218	19,709	20,052	21,046	6,420	36,151	20,519	23,198	19,186
<b>TOTAL</b>	<b>48,803</b>	<b>56,606</b>	<b>77,157</b>	<b>74,148</b>	<b>68,806</b>	<b>73,929</b>	<b>55,203</b>	<b>37,940</b>	<b>73,794</b>	<b>64,378</b>	<b>112,835</b>	<b>249,206</b>