

# 2011 Statistical Report on the use of Animals for Experimental and other Scientific purposes in Ireland.

## Licences and Certificates valid year ending 31 December 2011

### Licences by category:

Without Certificate	42
Certificate A	540
Certificate B	524
Certificate C	27
Certificate D	1
Certificate E	17
Certificate EE	14
Certificate F	37
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> )	248,958	11,182	12,986	223,996	794	0
1.b.	Rats ( <i>Rattus norvegicus</i> )	10,476	2,952	3,781	3,595	148	128
1.c.	Guinea-Pigs ( <i>Cavia porcellus</i> )	545	0	96	449	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> )	715	30	47	638	0	177
1.g.	Cats ( <i>Felis catus</i> )	120	120	0	0	0	59
1.h.	Dogs ( <i>Canis familiaris</i> )	473	473	0	0	0	120
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> )	238	238	0	0	0	0
1.l.	Pigs ( <i>Sus</i> )	286	286	0	0	0	0
1.m.	Goats ( <i>Capra</i> )	13	13	0	0	0	0
1.n.	Sheep ( <i>Ovis</i> )	348	322	24		2	5
1.o.	Cattle ( <i>Bos</i> )	1,700	1,582	0	10	108	24
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> )	480	0	0	0	480	0
1.u.	Quail ( <i>Coturnix coturnix</i> )	0					
1.v.	Other birds (other <i>Aves</i> )	503	463	0	0	40	0
1.w.	Reptiles ( <i>Reptilia</i> )	0					
1.x.	Amphibians ( <i>Amphibia</i> )	21		21	0		0
1.y.	Fish ( <i>Pisces</i> )	88	52			36	
1.z.	<b>TOTAL</b>	<b>264,964</b>	<b>17,739</b>	<b>16,942</b>	<b>228,688</b>	<b>1,608</b>	<b>513</b>

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 Diagnoses of disease	2.8 Education and training	2.9 Other	2.10 Total
2.a.	Mice	20,283	33,835	184	0	194,158	269	15	214	248,958
2.b.	Rats	5,659	4,624	0	0		117	4	72	10,476
2.c.	Guinea-Pigs	0	96	0	0	449	0	0	0	545
2.d.	Hamsters									0
2.e.	Other Rodents									0
2.f.	Rabbits	35	45	0	0	635	0	0	0	715
2.g.	Cats	0	64	0	0	56	0	0	0	120
2.h.	Dogs	0	361	0	0	112	0	0	0	473
2.i.	Ferrets									0
2.j.	Other Carnivores									0
2.k.	Horses, donkeys and cross breeds	7	0	0	22		209	0		238
2.l.	Pigs	5	54	7		36		0	184	286
2.m.	Goats		13	0	0	0	0	0	0	13
2.n.	Sheep	317						2	29	348
2.o.	Cattle	904	24	0	134	0	14	550	74	1,700
2.p.	Prosimians									0
2.q.	New World Monkeys									0
2.r.	Old World Monkeys									0
2.s.	Apes									0
2.t.	Other Mammals	0	480	0	0	0	0	0	0	480
2.u.	Quail									0
2.v.	Other birds	0	0	0	0	0	463	0	40	503
2.w.	Reptiles									0
2.x.	Amphibians	21								21
2.y.	Fish	52							36	88
2.z.	<b>TOTAL</b>	<b>27,283</b>	<b>39,596</b>	<b>191</b>	<b>156</b>	<b>195,446</b>	<b>1,072</b>	<b>571</b>	<b>649</b>	<b>264,964</b>

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

3.1 Species		Products versus 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	105	0	0	0	0	0	0	0	194,053	194,158
3.b.	Rats										0
3.c.	Guinea-Pigs	0	0	0	0	0	0	0	0	449	449
3.d.	Hamsters										0
3.e.	Other Rodents										0
3.f.	Rabbits	0	0	0	0	0	0	0	0	635	635
3.g.	Cats	56	0	0	0	0	0	0	0	0	56
3.h.	Dogs	112	0	0	0	0	0	0	0	0	112
3.i.	Ferrets										0
3.j.	Other Carnivores										0
3.k.	Horses, donkeys and cross breeds										0
3.l.	Pigs	0	0	0	0	0	0	36	0	0	0
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.	<b>TOTAL</b>	<b>273</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>36</b>	<b>0</b>	<b>195,137</b>	<b>195,446</b>

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	1,387	9,044	1,927	41,831	198	54,387
4.b.	Rats	746	4,273	0	5,381	0	10,400
4.c.	Guinea-Pigs	0	26	0	22	48	96
4.d.	Hamsters						0
4.e.	Other Rodents						0
4.f.	Rabbits	17	0	0	63	0	80
4.g.	Cats	0	0	0	0	64	64
4.h.	Dogs	0	0	0	0	361	361
4.i.	Ferrets						0
4.j.	Other Carnivores						0
4.k.	Horses, donkeys and cross breeds					216	216
4.l.	Pigs	52	0	5	2	0	59
4.m.	Goats	0	0	0	0	13	13
4.n.	Sheep	0	0	0	0	317	317
4.o.	Cattle	193	0	0	0	749	942
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	480	480
4.u.	Quail						0
4.v.	Other birds	0	0	0	0	463	463
4.w.	Reptiles						0
4.x.	Amphibians	0	0	0	0	21	21
4.y.	Fish	0	0	0	40	12	52
4.z.	TOTAL	2,395	13,343	1,932	47,339	2,942	67,951

**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 State)	5.3 EC legislation including European Pharmacopoeia (requirements)	5.4 Member Country of Europe (but not EC) legislation)	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	54	130	0	0	0	0	184
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							0
5.h.	Dogs							0
5.i.	Ferrets							0
5.j.	Other Carnivores							0
5.k.	Horses, donkeys and cross breeds	0	22	0	0	0	0	22
5.l.	Pigs	0	0	0	0	0	7	7
5.m.	Goats							0
5.n.	Sheep							0
5.o.	Cattle	0	134	0	0	0	0	134
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
5.w.	Reptiles							0
5.x.	Amphibians							0
5.y.	Fish							0
5.z.	<b>TOTAL</b>	<b>54</b>	<b>286</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>347</b>

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	20	624	0	0	193,429	85	194,158
6.b. Rats							0
6.c. Guinea-Pigs	0	0	0	0	449	0	449
6.d. Hamsters							0
6.e. Other Rodents	0	0	0	0			0
6.f. Rabbits					635		635
6.g. Cats	40	0	0	0	0	16	56
6.h. Dogs	80	32	0	0	0	0	112
6.i. Ferrets							0
6.j. Other Carnivores							0
6.k. Horses, donkeys and cross breeds							0
6.l. Pigs	0	0	0	0	0	36	36
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	140	656	0	0	194,513	137	195,446

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

Types of tests versus species															
	7.1. 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	175,812	624	20	0	0	0	85	0	0	0	0	0	17,617	194,158
7.b.	Rats														0
7.c.	Guinea-Pigs	0	0	0	0	0	0	0	0	0	0	0	0	449	449
7.d.	Hamsters														0
7.e.	Other Rodents														0
7.f.	Rabbits	0	0	0	0	0	0	0	0	0	0	0	0	635	635
7.g.	Cats	0	0	0	0	0	0	0	0	0	0	0	0	56	56
7.h.	Dogs	0	0	0	0	0	0	0	0	0	0	0	0	112	112
7.i.	Ferrets														0
7.j.	Other Carnivores														0
7.k.	Horses, donkeys and cross breeds														0
7.l.	Pigs	0	0	0	0	0	0	0	0	0	0	0	0	36	36
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.	TOTAL	175,812	624	20	0	0	0	85	0	0	0	0	0	18,905	195,446



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	0	0	20	0	0	0	85	0	0	0	0	0	168	273
8.b. Products/ substances used or intended to be used mainly in agriculture														0
8.c. Products/ substances used or intended to be used mainly in industry														0
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	0	0	0	0	0	0	0	0	0	0	0	36	36
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	175,812	624	0	0	0	0	0	0	0	0	0	0	18,701	195,137
<b>8.j. TOTAL</b>	<b>175,812</b>	<b>624</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>85</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18,905</b>	<b>195,446</b>

TABLE 9: NUMBER OF ANIMALS USED IN RELATION TO CERTIFICATES A, B & C

9.1 Species		9.2 With anaesthesia (Licence only)	9.3 Without anaesthesia (Certificate A)	9.4 With anaesthesia but with permitted recovery (Certificate B)	9.5 Demonstrations (Certificate C)	9.6 Total
9.a.	Mice	19,229	224,623	5,106	0	248,958
9.b.	Rats	5,630	2,315	2,531	0	10,476
9.c.	Guinea-Pigs	248	297	0	0	545
9.d.	Hamsters					
9.e.	Other Rodents					
9.f.	Rabbits	42	635	38	0	715
9.g.	Cats	0	96	24	0	120
9.h.	Dogs	0	433	40	0	473
9.i.	Ferrets					
9.j.	Other Carnivores					
9.k.	Horses, donkeys and cross breeds	0	238	0	0	238
9.l.	Pigs	9	180	97	0	286
9.m.	Goats	0	0	13	0	13
9.n.	Sheep	346	0	2	0	348
9.o.	Cattle	194	1,431	75	0	1,700
9.p.	Prosimians					
9.q.	New World Monkeys					
9.r.	Old World Monkeys					
9.s.	Apes					
9.t.	Other Mammals	0	0	480	0	480
9.u.	Quail					
9.v.	Other birds	0	503	0	0	503
9.w.	Reptiles					
9.x.	Amphibians	0	21	0	0	21
9.y.	Fish	0	12	76	0	88
9.z.	<b>TOTAL</b>	<b>25,698</b>	<b>230,784</b>	<b>8,482</b>	<b>0</b>	<b>264,964</b>

**TABLE 10: GENETIC STATUS**

10.1 Species		10.2 With genetic defect	10.3 Transgenic	10.4 Total
10.a	Mice	3,515	3,880	7,395
10.b	Rats	0	118	118
10.c	Fish	0	40	40
10.d	Total	3,515	4,038	7,553

**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	22,113	37	0	624	226,184	248,958
11.b. Rats	6,868	37	0	0	3,571	10,476
11.c. Guinea-Pigs	38	0	0	0	507	545
11.d. Hamsters						0
11.e. Other Rodents						0
11.f. Rabbits	51	17	0	0	647	715
11.g. Cats	0	0	0	0	120	120
11.h. Dogs	0	0	0	0	473	473
11.i. Ferrets						0
11.j. Other Carnivores						0
11.k. Horses, donkeys and cross breeds	200	0	16	0	22	238
11.l. Pigs	199	4	76	0	7	286
11.m. Goats	13	0	0	0	0	39
11.n. Sheep	26	0	322	0	0	348
11.o. Cattle	80	0	1,462	0	158	0
11.p. Prosimians						0
11.q. New World Monkeys						0
11.r. Old World Monkeys						0
11.s. Apes						0
11.t. Other Mammals	0	0	480	0	0	480
11.u. Quail						0
11.v. Other birds	40	0	463	0	0	503
11.w. Reptiles						0
11.x. Amphibians	21	0	0	0	0	0
11.y. Fish	40	0	0	48	0	88
11.z. TOTAL	29,689	95	2,819	672	231,689	264,964

TABLE 12: THE NUMBER OF SPECIES OF LIVE ANIMALS USED IN SCIENTIFIC PROCEDURES IN THE YEARS 2006-2011

SPECIES	2006	2007	2008	2009	2010	2011
MICE	21,152	26,111	71,224	209,903	242,890	248,958
RATS	10,314	12,792	11,741	16,198	14,437	10,476
GUINEA PIGS	25	5	91	477	441	545
HAMSTERS	60	55	68	0	0	0
OTHER RODENTS	0	0	0	0	0	0
RABBITS	101	43	204	138	932	715
CATS	169	421	295	653	180	120
DOGS	297	477	557	202	831	473
FERRETS	4	0	0	0	0	0
HORSES, DONKEYS & CROSSBREEDS	182	153	144	40	62	238
PIGS	189	190	224	325	755	286
GOATS	0	22	0	0	5	13
SHEEP	331	370	456	24	11	348
CATTLE	4,689	2,152	4,019	1,326	2,672	1,700
OTHER MAMMALS	61	38	32	389	669	480
BIRDS	69	1,016	582	345	333	503
AMPHIBIANS	0	14	0	0	13	21
FISH	36,151	20,519	23,198	19,186	15,378	88
<b>TOTAL</b>	<b>73,794</b>	<b>64,378</b>	<b>112,835</b>	<b>249,206</b>	<b>279,609</b>	<b>264,964</b>