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Supplementary Tables

2nd edition

Statistics of Scientific Procedures on Living Animals

GREAT BRITAIN
2009



Organisation Chart: Relationship between the tables, 2009

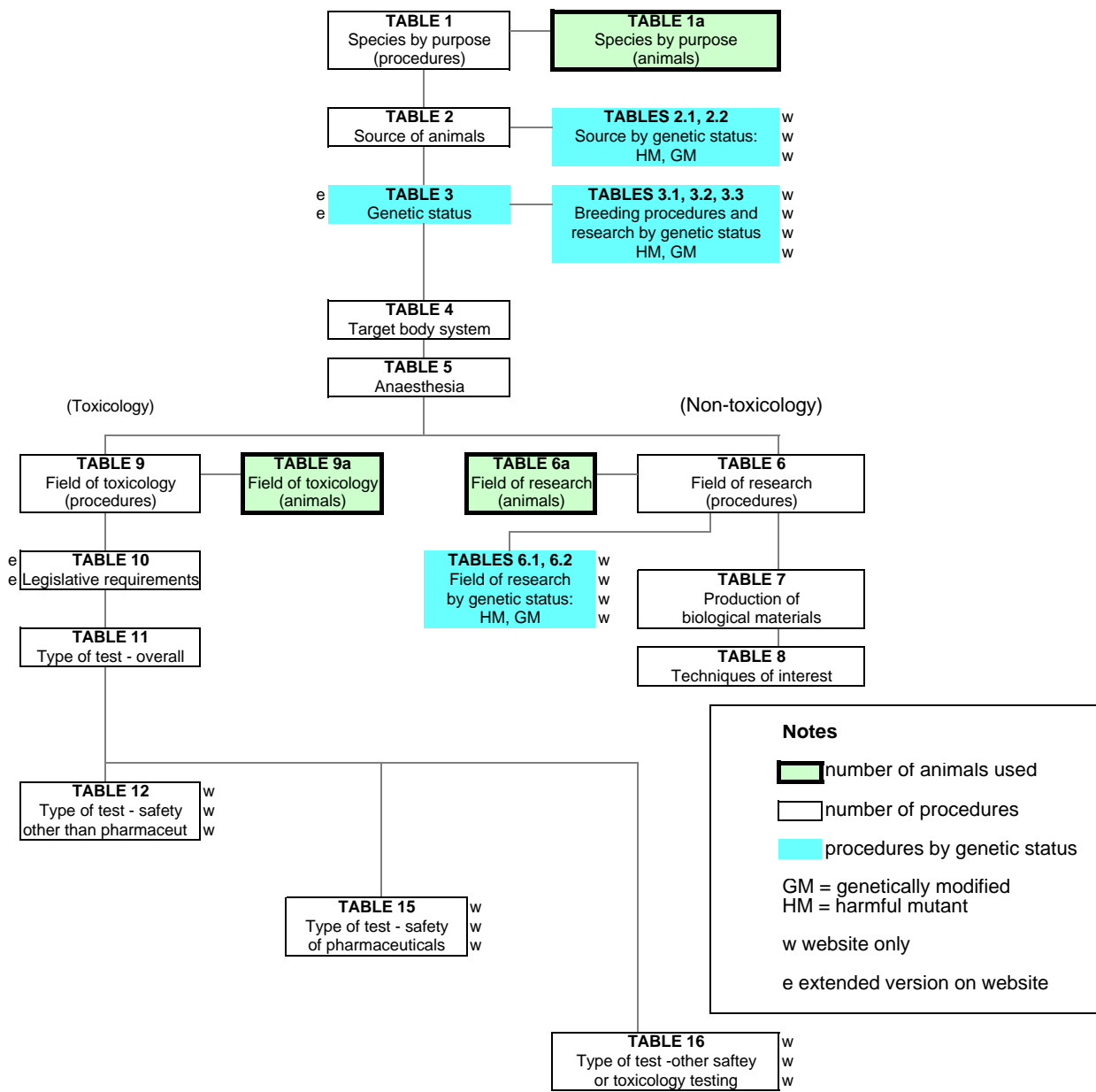


Table 1 Scientific procedures by species of animal and primary purpose of the procedure, page 1 of 2

Species of animal	Primary purpose of the procedure										Number of procedures	
	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 of GM or HM animals	Total	Total	
Mammal												
Mouse	830,642	357,954	12,308	20,700	891	-	-	6,721	1,399,340	2,628,556		
Rat	96,478	191,396	15	29,021	451	688	-	533	15,283	333,865		
Guinea pig	1,407	15,864	1,553	-	181	-	-	154	-	19,159		
Hamster	882	1,478	735	62	-	-	-	-	-	3,157		
Gerbil	688	240	-	-	-	-	-	-	-	928		
Other rodent	2,121	-	-	383	-	-	-	-	-	2,504		
Rabbit	1,340	10,926	2,274	954	18	-	1,050	-	-	16,562		
Cat	55	-	220	-	-	-	-	-	-	275		
Dog												
Beagle	96	5,297	271	200	-	-	-	-	-	5,864		
Greyhound	-	-	-	-	-	-	-	-	-	-		
Other including cross-bred dogs	-	-	59	-	-	-	-	-	-	59		
Ferret	387	451	-	-	12	-	-	40	-	890		
Other carnivore	456	-	425	114	-	-	-	-	-	995		
Horse and other equids	181	2	124	-	-	-	-	8,440	-	8,747		
Pig	1,220	1,243	1,236	30	-	-	-	4	24	3,757		
Goat	3	3	15	88	-	-	-	24	-	133		
Sheep	4,509	915	1,454	12	-	-	-	30,996	117	38,003		
Cattle	2,392	-	1,687	260	-	-	-	19	-	4,358		
Deer	71	-	-	-	-	-	-	-	-	71		
Camelid	-	-	-	-	-	-	-	-	-	-		
Other ungulate	-	-	-	-	-	-	-	22	-	22		

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

Species of animal	Primary purpose of the procedure										Number of procedures			
	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 of GM or HM animals	Total				
Primate														
Prosimian	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New World monkey														
marmoset, tamarin	218	401	-	-	-	-	-	-	-	-	-	-	-	619
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other New World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Old World monkey														
Macaque	194	2,946	-	504	-	-	-	-	-	-	-	-	-	3,644
Baboon	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Old World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ape														
Gibbon	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Great ape	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other mammal														
1,217	-	-	-	98	-	-	-	-	-	-	-	-	-	1,315
Bird														
Domestic fowl (<i>Gallus domesticus</i>)	9,714	19	102,300	276	150	-	1,571	271	-	-	-	-	-	114,301
Turkey	391	138	2,221	-	-	-	146	-	-	-	-	-	-	2,896
Quail (<i>Coturnix coturnix</i>)	20	-	-	-	-	-	-	-	-	-	-	-	-	20
Quail (not <i>Coturnix coturnix</i>)	-	-	-	500	-	-	-	-	-	-	-	-	-	500
Other bird	8,094	-	310	442	-	-	-	218	-	-	-	-	-	9,064
Reptile - any reptilian species	459	-	-	1	-	-	-	-	-	-	-	-	-	460
Amphibian - any amphibian species	16,065	163	-	1,184	-	-	-	-	-	-	-	-	3,303	20,715
Fish - any fish species	194,992	53,426	13,663	18,046	-	-	-	2,398	-	-	-	-	115,576	398,101
Cephalopod - <i>Octopus vulgaris</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	1,174,292	642,862	140,870	72,875	1,703	688	52,336	1,533,914	3,619,540	688	-	52,336	1,533,914	3,619,540
Increase on 2008	3,630	-175,766	4,303	-10,709	-164	-89	-778	143,033	-36,540		0			
Percentage change from 2008	0.3%	-21%	3%	-13%	-9%	-11%	-1%	10%	-1%		N/A			
Percentage of total for 2009	32%	18%	4%	2%	0.0%	0.0%	1%	42%	100%		0%			
2008 Totals	1,170,662	818,628	136,567	83,584	1,867	777	53,114	1,390,881	3,656,080		0			

N/A = Not applicable

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

Species of animal	Primary purpose of the procedure										Number of animals	
	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 of GM or HM animals	Total		
Mammal												
Mouse	825,365	353,704	12,308	20,700	891	-	-	1,398,985	6,721	-	2,618,674	
Rat	88,783	188,290	15	29,011	451	688	-	15,283	533	-	323,054	
Guinea pig	1,407	15,806	1,553	-	181	-	-	-	102	-	19,049	
Hamster	617	1,478	735	62	-	-	-	-	-	-	2,892	
Gerbil	688	240	-	-	-	-	-	-	-	-	928	
Other rodent	2,121	-	-	383	-	-	-	-	-	-	2,504	
Rabbit	1,147	7,030	1,498	950	18	-	-	-	1,000	-	11,643	
Cat	55	-	117	-	-	-	-	-	-	-	172	
Dog												
Beagle	96	3,536	266	191	-	-	-	-	-	-	4,089	
Greyhound	-	-	-	-	-	-	-	-	-	-	-	
Other including cross-bred dogs	-	-	40	-	-	-	-	-	-	-	40	
Ferret	387	352	-	-	12	-	-	-	40	-	791	
Other carnivore	456	-	222	114	-	-	-	-	-	-	792	
Horse and other equids	38	2	111	-	-	-	-	-	48	-	199	
Pig	1,207	1,093	1,206	30	-	-	-	24	4	-	3,564	
Goat	3	3	15	88	-	-	-	-	24	-	133	
Sheep	4,455	847	1,277	-	-	-	-	-	1,319	-	8,015	
Cattle	1,561	-	1,564	241	-	-	-	-	8	-	3,374	
Deer	71	-	-	-	-	-	-	-	-	-	71	
Camelid	-	-	-	-	-	-	-	-	-	-	-	
Other ungulate	-	-	-	-	-	-	-	-	22	-	22	

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

Species of animal	Primary purpose of the procedure						Number of animals			
	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 of GM or HM animals	Total
Primate										
Prosimian	-	-	-	-	-	-	-	-	-	-
New World monkey										
marmoset, tamarin	178	320	-	-	-	-	-	-	-	498
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	-
Other New World monkey	-	-	-	-	-	-	-	-	-	-
Old World monkey										
Macaque	162	1,866	-	289	-	-	-	-	-	2,317
Baboon	-	-	-	-	-	-	-	-	-	-
Other Old World monkey	-	-	-	-	-	-	-	-	-	-
Ape										
Gibbon	-	-	-	-	-	-	-	-	-	-
Great ape	-	-	-	-	-	-	-	-	-	-
Other mammal	1,132	-	-	98	-	-	-	-	-	1,230
Bird										
Domestic fowl (<i>Gallus domesticus</i>)	9,714	19	102,300	276	150	-	1,571	271	-	114,301
Turkey	391	84	2,221	-	-	-	22	-	-	2,718
Quail (<i>Coturnix coturnix</i>)	20	-	-	-	-	-	-	-	-	20
Quail (not <i>Coturnix coturnix</i>)	-	-	-	500	-	-	-	-	-	500
Other bird	7,909	-	310	442	-	-	218	-	-	8,879
Reptile - any reptilian species	459	-	-	1	-	-	-	-	-	460
Amphibian - any amphibian species	8,473	60	-	1,184	-	-	-	3,142	-	12,859
Fish - any fish species	194,668	53,426	13,663	18,046	-	-	2,398	115,263	-	397,464
Cephalopod - <i>Octopus vulgaris</i>	-	-	-	-	-	-	-	-	-	-
Total	1,151,563	628,156	139,421	72,606	1,703	688	14,030	1,533,085	3,541,252	
Increase on 2008	-1,517	-173,762	4,294	-10,816	-157	-89	-3,479	143,555	-41,971	
Percentage change from 2008	-0.1%	-22%	3%	-13%	-8%	-11%	-20%	10%	-1%	
Percentage of total for 2009	33%	18%	4%	2%	0.0%	0.0%	0.4%	43%	100%	
2008 Totals	1,153,080	801,918	135,127	83,422	1,860	777	17,509	1,389,530	3,583,223	

N/A = Not applicable

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

Species of animal	Source							Number of procedures		
	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	Total		
Mouse	2,060,834	552,130	12	7,512	244	7,824	-	2,628,556		
Rat	45,296	287,042	101	1,248	-	178	-	333,865		
Guinea pig	326	18,833	-	-	-	-	-	19,159		
Hamster	518	1,219	-	1,218	-	202	-	3,157		
Gerbil	363	-	-	482	-	83	-	928		
Rabbit	5,061	10,816	-	288	-	397	-	16,562		
Cat	55	9	21	146	-	44	-	275		
Dog	1,370	3,539	11	232	-	771	-	5,923		
Ferret	55	834	-	-	-	1	-	890		
Pig (genetically modified)	178	-	-	-	-	-	-	178		
Sheep (genetically modified)	9	34	-	-	-	-	-	43		
Primate	557	1,844	-	75	18	1,769	-	4,263		
Quail (<i>Coturnix coturnix</i>)	20	-	-	-	-	-	-	20		
Animals not listed in Schedule 2	-	-	-	-	-	-	605,721	605,721		
Total	2,114,642	876,300	145	11,201	262	11,269	605,721	3,619,540		
Increase on 2008	188,417	-8,836	-55	-872	-251	-1,554	-213,389	-36,540		
Percentage change from 2008	10%	-1%	-28%	-7%	-49%	-12%	-26%	-1%		
Percentage of total for 2009	58%	24%	0.0%	0.3%	0.0%	0.3%	17%	100%		
2008 Totals	1,926,225	885,136	200	12,073	513	12,823	819,110	3,656,080		

Note. The total number of procedures using animals listed in schedule 2 was 3,013,819

**Table 2.1 Scientific procedures by Schedule 2 listed species and source of animals
(animals with a harmful genetic defect)**

Species of animal	Source							Number of procedures	
	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 ⁽¹⁾	Total	
Mouse	293,357	36,287	-	1,264	-	600	-	331,508	
Rat	14,630	1,155	-	334	-	12	-	16,131	
Guinea pig	-	-	-	-	-	-	-	-	
Hamster	-	-	-	-	-	-	-	-	
Gerbil	-	-	-	-	-	-	-	-	
Rabbit	-	-	-	-	-	-	-	-	
Cat	-	-	-	-	-	-	-	-	
Dog	-	-	-	-	-	-	-	-	
Ferret	-	-	-	-	-	-	-	-	
Pig (genetically modified)	-	-	-	-	-	-	-	-	
Sheep (genetically modified)	-	-	-	-	-	-	-	-	
Primate	-	-	-	-	-	-	-	-	
Quail (<i>Coturnix coturnix</i>)	-	-	-	-	-	-	-	-	
Animals not listed in Schedule 2	-	-	-	-	-	-	35,300	35,300	
Total	307,987	37,442	-	1,598	-	612	35,300	382,939	

(1) The "animals not listed in Schedule 2" with harmful genetic defects were 361 procedures using domestic fowl, 5,764 procedures using amphibians and 29,175 procedures using fish.

Table 2.2 Scientific procedures by Schedule 2 listed species and source of animals (genetically modified animals)

Species of animal	Great Britain 2009							Number of procedures		
	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 ⁽¹⁾	Total		
Mouse	1,362,519	31,643	-	4,867	159	6,427	-	1,405,615		
Rat	4,299	185	-	58	-	24	-	4,566		
Guinea pig	-	-	-	-	-	-	-	-		
Hamster	-	-	-	-	-	-	-	-		
Gerbil	-	-	-	-	-	-	-	-		
Rabbit	-	-	-	-	-	-	-	-		
Cat	-	-	-	-	-	-	-	-		
Dog	-	-	-	-	-	-	-	-		
Ferret	-	-	-	-	-	-	-	-		
Pig (genetically modified)	178	-	-	-	-	-	-	178		
Sheep (genetically modified)	9	34	-	-	-	-	-	43		
Primate	-	-	-	-	-	-	-	-		
Quail (<i>Coturnix coturnix</i>)	-	-	-	-	-	-	-	-		
Animals not listed in Schedule 2	-	-	-	-	-	-	103,596	103,596		
Total	1,367,005	31,862	-	4,925	159	6,451	103,596	1,513,998		

(1) The "animals not listed in Schedule 2" with genetic modification were 129 procedures using domestic fowl, 1,545 procedures using amphibia and 101,922 procedures using fish.

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

Summary Version

Note. For numbers of procedures by purpose, see full table available on the website

Great Britain 2009

Number of procedures

Species of animal	Genetic status			Total
	Normal animal	Animal with harmful genetic	Genetically modified animal	
Mammal				
Mouse	891,433	331,508	1,405,615	2,628,556
Rat	313,168	16,131	4,566	333,865
Guinea pig	19,159	-	-	19,159
Hamster	3,157	-	-	3,157
Gerbil	928	-	-	928
Other rodent	2,504	-	-	2,504
Rabbit	16,562	-	-	16,562
Cat	275	-	-	275
Dog				
Beagle	5,864	-	-	5,864
Greyhound	-	-	-	-
Other inc cross-breds	59	-	-	59
Ferret	890	-	-	890
Other carnivore	995	-	-	995
Horse and other equids	8,747	-	-	8,747
Pig	3,579	-	178	3,757
Goat	133	-	-	133
Sheep	37,960	-	43	38,003
Cattle	4,358	-	-	4,358
Deer	71	-	-	71
Camelid	-	-	-	-
Other ungulate	22	-	-	22
Primate				
Prosimian	-	-	-	-
New World monkey				
marmoset, tamarin	619	-	-	619
Squirrel, owl, spider monkey	-	-	-	-
Other New World monkey	-	-	-	-
Old World monkey				
Macaque	3,644	-	-	3,644
Baboon	-	-	-	-
Other Old World monkey	-	-	-	-
Ape				
Gibbon	-	-	-	-
Great ape	-	-	-	-
Other mammal	1,315	-	-	1,315
Bird				
Domestic fowl (<i>Gallus domesticus</i>)	113,811	361	129	114,301
Turkey	2,896	-	-	2,896
Quail (<i>Coturnix coturnix</i>)	20	-	-	20
Quail (not <i>Coturnix coturnix</i>)	500	-	-	500
Other bird	9,064	-	-	9,064
Reptile	460	-	-	460
Amphibian	13,406	5,764	1,545	20,715
Fish	267,004	29,175	101,922	398,101
Cephalopod	-	-	-	-
Total	1,722,603	382,939	1,513,998	3,619,540
Percentage of total for 2009	48%	11%	42%	100%

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

Great Britain 2009		Number of procedures			
Species of animal	Primary purpose of procedure	Genetic status			Total
		Normal animal	Animal with harmful genetic defect	Genetically modified animal	
Mouse	Fundamental biological research	312,206	66,544	451,892	830,642
	Applied studies	301,508	42,838	25,916	370,262
	Safety	20,632	68	-	20,700
	Other uses	6,237	36	1,339	7,612
	Breeding of GM or HM	250,850	222,022	926,468	1,399,340
	Total	891,433	331,508	1,405,615	2,628,556
Rat	Fundamental biological research	90,983	3,507	1,988	96,478
	Applied studies	189,747	1,493	171	191,411
	Safety	29,021	-	-	29,021
	Other uses	1,672	-	-	1,672
	Breeding of GM or HM	1,745	11,131	2,407	15,283
	Total	313,168	16,131	4,566	333,865
Guinea pig	Fundamental biological research	1,407	-	-	1,407
	Applied studies	17,417	-	-	17,417
	Safety	-	-	-	-
	Other uses	335	-	-	335
	Breeding of GM or HM	-	-	-	-
	Total	19,159	-	-	19,159
Hamster	Fundamental biological research	882	-	-	882
	Applied studies	2,213	-	-	2,213
	Safety	62	-	-	62
	Other uses	-	-	-	-
	Breeding of GM or HM	-	-	-	-
	Total	3,157	-	-	3,157
Gerbil	Fundamental biological research	688	-	-	688
	Applied studies	240	-	-	240
	Safety	-	-	-	-
	Other uses	-	-	-	-
	Breeding of GM or HM	-	-	-	-
	Total	928	-	-	928
Other rodent	Fundamental biological research	2,121	-	-	2,121
	Applied studies	-	-	-	-
	Safety	383	-	-	383
	Other uses	-	-	-	-
	Breeding of GM or HM	-	-	-	-
	Total	2,504	-	-	2,504
Rabbit	Fundamental biological research	1,340	-	-	1,340
	Applied studies	13,200	-	-	13,200
	Safety	954	-	-	954
	Other uses	1,068	-	-	1,068
	Breeding of GM or HM	-	-	-	-
	Total	16,562	-	-	16,562
Cat	Fundamental biological research	55	-	-	55
	Applied studies	220	-	-	220
	Safety	-	-	-	-
	Other uses	-	-	-	-
	Breeding of GM or HM	-	-	-	-
	Total	275	-	-	275
Dog - Beagle	Fundamental biological research	96	-	-	96
	Applied studies	5,568	-	-	5,568
	Safety	200	-	-	200
	Other uses	-	-	-	-
	Breeding of GM or HM	-	-	-	-
	Total	5,864	-	-	5,864
Dog - Other	Fundamental biological research	-	-	-	-
	Applied studies	59	-	-	59
	Safety	-	-	-	-
	Other uses	-	-	-	-
	Breeding of GM or HM	-	-	-	-
	Total	59	-	-	59
Ferret	Fundamental biological research	387	-	-	387
	Applied studies	451	-	-	451
	Safety	-	-	-	-
	Other uses	52	-	-	52
	Breeding of GM or HM	-	-	-	-
	Total	890	-	-	890

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

Great Britain 2009		Number of procedures			
Species of animal	Primary purpose of procedure	Genetic status			Total
		Normal animal	Animal with harmful genetic defect	Genetically modified animal	
Other carnivore	Fundamental biological research	456	-	-	456
	Applied studies	425	-	-	425
	Safety	114	-	-	114
	Other uses	-	-	-	-
	Breeding of GM or HM	-	-	-	-
	Total	995	-	-	995
Horse, Donkey etc	Fundamental biological research	181	-	-	181
	Applied studies	126	-	-	126
	Safety	-	-	-	-
	Other uses	8,440	-	-	8,440
	Breeding of GM or HM	-	-	-	-
	Total	8,747	-	-	8,747
Pig	Fundamental biological research	1,042	-	178	1,220
	Applied studies	2,479	-	-	2,479
	Safety	30	-	-	30
	Other uses	4	-	-	4
	Breeding of GM or HM	24	-	-	24
	Total	3,579	-	178	3,757
Goat	Fundamental biological research	3	-	-	3
	Applied studies	18	-	-	18
	Safety	88	-	-	88
	Other uses	24	-	-	24
	Breeding of GM or HM	-	-	-	-
	Total	133	-	-	133
Sheep	Fundamental biological research	4,475	-	34	4,509
	Applied studies	2,369	-	-	2,369
	Safety	12	-	-	12
	Other uses	30,996	-	-	30,996
	Breeding of GM or HM	108	-	9	117
	Total	37,960	-	43	38,003
Cattle	Fundamental biological research	2,392	-	-	2,392
	Applied studies	1,687	-	-	1,687
	Safety	260	-	-	260
	Other uses	19	-	-	19
	Breeding of GM or HM	-	-	-	-
	Total	4,358	-	-	4,358
Deer	Fundamental biological research	71	-	-	71
	Applied studies	-	-	-	-
	Safety	-	-	-	-
	Other uses	-	-	-	-
	Breeding of GM or HM	-	-	-	-
	Total	71	-	-	71
Other ungulate	Fundamental biological research	-	-	-	-
	Applied studies	-	-	-	-
	Safety	-	-	-	-
	Other uses	22	-	-	22
	Breeding of GM or HM	-	-	-	-
	Total	22	-	-	22
Marmoset, Tamarin	Fundamental biological research	218	-	-	218
	Applied studies	401	-	-	401
	Safety	-	-	-	-
	Other uses	-	-	-	-
	Breeding of GM or HM	-	-	-	-
	Total	619	-	-	619
Macaque	Fundamental biological research	194	-	-	194
	Applied studies	2,946	-	-	2,946
	Safety	504	-	-	504
	Other uses	-	-	-	-
	Breeding of GM or HM	-	-	-	-
	Total	3,644	-	-	3,644
Other mammal	Fundamental biological research	1,217	-	-	1,217
	Applied studies	-	-	-	-
	Safety	98	-	-	98
	Other uses	-	-	-	-
	Breeding of GM or HM	-	-	-	-
	Total	1,315	-	-	1,315

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

Great Britain 2009		Number of procedures			
Species of animal	Primary purpose of procedure	Genetic status			Total
		Normal animal	Animal with harmful genetic defect	Genetically modified animal	
Domestic fowl	Fundamental biological research	9,353	361	-	9,714
	Applied studies	102,271	-	48	102,319
	Safety	276	-	-	276
	Other uses	1,721	-	-	1,721
	Breeding of GM or HM	190	-	81	271
	Total	113,811	361	129	114,301
Turkey	Fundamental biological research	391	-	-	391
	Applied studies	2,359	-	-	2,359
	Safety	-	-	-	-
	Other uses	146	-	-	146
	Breeding of GM or HM	-	-	-	-
	Total	2,896	-	-	2,896
Quail (<i>Coturnix coturnix</i>)	Fundamental biological research	20	-	-	20
	Applied studies	-	-	-	-
	Safety	-	-	-	-
	Other uses	-	-	-	-
	Breeding of GM or HM	-	-	-	-
	Total	20	-	-	20
Quail (spp. other than <i>Coturnix coturnix</i>)	Fundamental biological research	-	-	-	-
	Applied studies	-	-	-	-
	Safety	500	-	-	500
	Other uses	-	-	-	-
	Breeding of GM or HM	-	-	-	-
	Total	500	-	-	500
Other bird	Fundamental biological research	8,094	-	-	8,094
	Applied studies	310	-	-	310
	Safety	442	-	-	442
	Other uses	218	-	-	218
	Breeding of GM or HM	-	-	-	-
	Total	9,064	-	-	9,064
Reptile	Fundamental biological research	459	-	-	459
	Applied studies	-	-	-	-
	Safety	1	-	-	1
	Other uses	-	-	-	-
	Breeding of GM or HM	-	-	-	-
	Total	460	-	-	460
Amphibian	Fundamental biological research	11,847	2,953	1,265	16,065
	Applied studies	163	-	-	163
	Safety	1,184	-	-	1,184
	Other uses	-	-	-	-
	Breeding of GM or HM	212	2,811	280	3,303
	Total	13,406	5,764	1,545	20,715
Fish	Fundamental biological research	172,927	3,568	18,497	194,992
	Applied studies	66,969	-	120	67,089
	Safety	18,046	-	-	18,046
	Other uses	2,398	-	-	2,398
	Breeding of GM or HM	6,664	25,607	83,305	115,576
	Total	267,004	29,175	101,922	398,101
All species	Fundamental biological research	623,505	76,933	473,854	1,174,292
	Applied studies	713,146	44,331	26,255	783,732
	Safety	72,807	68	-	72,875
	Other uses	53,352	36	1,339	54,727
	Breeding of GM or HM	259,793	261,571	1,012,550	1,533,914
	TOTAL	1,722,603	382,939	1,513,998	3,619,540
	Increase on 2008	-172,278	-42,700	178,438	-36,540
	Percentage change from 2008	-9%	-10%	13%	-1%
	Percentage of total for 2009	48%	11%	42%	100%
	2008 Totals	1,894,881	425,639	1,335,560	3,656,080

Note. Species not listed had no procedures

Table 3.1 Procedures using genetically normal animals for the production and breeding of genetically modified or harmful mutant animals

Great Britain 2009				Number of procedures
Species of animal	Generation of founder genetically modified animals	Normal animals within genetically modified breeding colonies	Normal animals within harmful mutant breeding colonies	Totals
Mouse	101,160	141,300	8,390	250,850
Rat	157	1,588	-	1,745
All other rodents	-	-	-	-
Rabbit	-	-	-	-
Cat	-	-	-	-
Dog	-	-	-	-
Ferret	-	-	-	-
Other carnivore	-	-	-	-
Horse and other equids	-	-	-	-
Pig	24	-	-	24
Sheep	108	-	-	108
All other ungulates	-	-	-	-
New World monkey	-	-	-	-
Old World monkey	-	-	-	-
All other mammals	-	-	-	-
Bird	188	2	-	190
Reptile	-	-	-	-
Amphibian	212	-	-	212
Fish	6,653	11	-	6,664
Total	108,502	142,901	8,390	259,793

Table 3.2 Procedures using harmful mutant animals in breeding procedures or research

Species of animal	Generation of founder animals	Maintenance of breeding colony	Used for further non-regulated scientific purpose ⁽¹⁾	Used in further regulated procedures	Used in production and other procedures ⁽²⁾	Number of procedures	
						Used in safety evaluation studies ⁽³⁾	Totals
Mouse	-	222,022	12,754	73,036	22,138	1,558	331,508
Rat	-	11,131	394	4,010	589	7	16,131
All other rodents	-	-	-	-	-	-	-
Rabbit	-	-	-	-	-	-	-
Cat	-	-	-	-	-	-	-
Dog	-	-	-	-	-	-	-
Ferret	-	-	-	-	-	-	-
Other carnivore	-	-	-	-	-	-	-
Horse and other equids	-	-	-	-	-	-	-
Pig	-	-	-	-	-	-	-
Sheep	-	-	-	-	-	-	-
All other ungulates	-	-	-	-	-	-	-
New World monkey	-	-	-	-	-	-	-
Old World monkey	-	-	-	-	-	-	-
All other mammals	-	-	-	-	-	-	-
Bird	-	-	-	-	361	-	361
Reptile	-	-	-	-	-	-	-
Amphibian	-	2,811	2,953	-	-	-	5,764
Fish	-	25,607	1,715	1,853	-	-	29,175
Total	-	261,571	17,816	78,899	23,088	1,565	382,939

(1) See Annex B of Appendix B

(2) Includes production of various biological materials (codes B50-B56 in Appendix B); also includes procedures not concerned with production (code B79)

(3) Reported using A codes in rows 10-12 (see Appendix B)

Table 3.3 Procedures using genetically modified animals in breeding procedures or research

Species of animal	Generation of founder animals	Maintenance of breeding colony	Used for further non-regulated scientific purpose ⁽¹⁾	Used in further regulated procedures	Used in production and other procedures ⁽²⁾	Used in safety evaluation studies ⁽³⁾	Number of procedures	
							Total	Total
Mouse	32,082	894,386	187,527	208,482	80,853	2,285	1,405,615	1,405,615
Rat	473	1,934	588	849	676	46	4,566	4,566
All other rodents	-	-	-	-	-	-	-	-
Rabbit	-	-	-	-	-	-	-	-
Cat	-	-	-	-	-	-	-	-
Dog	-	-	-	-	-	-	-	-
Ferret	-	-	-	-	-	-	-	-
Other carnivore	-	-	-	-	-	-	-	-
Horse and other equids	-	-	-	-	-	-	-	-
Pig	-	-	-	178	-	-	178	178
Sheep	-	9	-	34	-	-	43	43
All other ungulates	-	-	-	-	-	-	-	-
New World monkey	-	-	-	-	-	-	-	-
Old World monkey	-	-	-	-	-	-	-	-
All other mammals	-	-	-	-	-	-	-	-
Bird	44	37	48	-	-	-	129	129
Reptile	-	-	-	-	-	-	-	-
Amphibian	170	110	945	59	261	-	1,545	1,545
Fish	5,978	77,327	10,438	6,572	1,607	-	101,922	101,922
Total	38,747	973,803	199,546	216,174	83,397	2,331	1,513,998	1,513,998

(1) See Annex B of Appendix B

(2) Includes production of various biological materials (codes B50-B56 in Appendix B); also includes procedures not concerned with production (code B79)

(3) Reported using A codes in rows 10-12 (see Appendix B)

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

Species of animal	Body systems											Number of procedures		
	Respiratory	Cardiovascular	Nervous	Senses	Alimentary	Skin	Musculo - skeletal	Reproductive	Immune and reticulo - endothelial	Other system	Multiple systems	System not relevant	Total	
Mammal														
Mouse	56,183	78,663	264,009	38,499	47,337	55,358	46,407	205,105	445,556	62,030	593,396	736,013	2,628,556	
Rat	25,437	22,942	88,708	3,089	11,819	1,398	3,372	37,813	6,257	14,033	69,873	49,124	333,865	
All other rodents	9,494	782	1,078	328	978	105	3	53	4,715	405	3,842	3,965	25,748	
Rabbit	94	805	143	227	132	541	178	2,957	2,892	354	6,573	1,666	16,562	
Cat	-	9	124	31	9	-	-	-	30	-	30	42	275	
Dog	93	426	8	-	54	-	-	20	-	34	3,289	1,999	5,923	
Ferret	155	35	26	74	-	-	-	-	95	-	354	151	890	
Other carnivore	-	89	-	-	-	-	-	31	-	-	425	450	995	
Horse and other equids	114	58	-	-	-	-	4	39	47	5,957	27	2,501	8,747	
Pig	249	243	148	31	483	85	-	87	550	4	1,406	471	3,757	
Sheep	150	149	739	-	717	74	403	882	1,556	27,908	2,889	2,536	36,003	
All other ungulates	277	4	22	-	710	18	-	205	698	2	1,701	947	4,584	
New World monkey	-	20	56	-	-	-	-	53	4	2	156	328	619	
Old World monkey	20	91	82	11	-	-	-	14	31	4	1,359	2,032	3,644	
All other mammals	-	-	-	16	-	-	-	4	-	240	-	1,055	1,315	
Bird	111	3,019	1,860	1,063	4,557	625	112	142	1,932	93,964	9,410	9,986	126,781	
Reptile	-	-	-	-	-	8	-	-	-	451	-	1	460	
Amphibian	-	47	105	180	-	620	452	17,000	-	600	523	1,188	20,715	
Fish	80	3,788	39,912	8,143	24,336	10,034	21,065	32,370	19,236	20,861	59,642	158,634	398,101	
Total	92,457	111,170	397,020	51,692	91,132	68,866	71,996	296,775	483,599	226,849	754,895	973,089	3,619,540	
Increase on 2008	-5,985	7,873	-44,209	9,147	-118,145	11,735	-23,705	-9,790	22,561	20,424	1,349	92,205	-36,540	
Percentage change from 2008	-6%	8%	-10%	21%	-56%	21%	-25%	-3%	5%	10%	0.2%	10%	-1%	
Percentage of total for 2009	3%	3%	11%	1%	3%	2%	2%	8%	13%	6%	21%	27%	100%	
2008 Totals	98,442	103,297	441,229	42,545	209,277	57,131	95,701	306,565	461,038	206,425	753,546	880,884	3,656,080	

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

Species of animal	No anaesthesia	Type of anaesthesia			Number of procedures	
		General anaesthesia, with recovery	Local anaesthesia	General anaesthesia at end of procedure, without recovery	General anaesthesia throughout, without recovery	Total
Mammal						
Mouse	1,882,857	372,478	230,218	93,107	49,896	2,628,556
Rat	176,065	97,944	1,417	32,224	26,215	333,865
All other rodents	12,465	7,970	68	3,368	1,877	25,748
Rabbit	10,189	651	2,446	1,506	1,770	16,562
Cat	150	108	-	-	17	275
Dog	4,648	392	280	449	154	5,923
Ferret	225	619	-	17	29	890
Other carnivore	184	811	-	-	-	995
Horse and other equids	212	1	8,534	-	-	8,747
Pig	2,870	382	77	102	326	3,757
Sheep	36,659	1,101	39	82	122	38,003
All other ungulates	4,329	41	173	29	12	4,584
Primate						
New World monkey	389	83	16	-	131	619
Old World monkey	3,079	292	-	221	52	3,644
All other mammals	1,234	65	3	-	13	1,315
Bird	36,228	1,083	58	88,529	883	126,781
Reptile	460	-	-	-	-	460
Amphibian	19,148	1,369	-	98	100	20,715
Fish	222,454	134,676	2	37,414	3,555	398,101
Total	2,413,845	620,066	243,331	257,146	85,152	3,619,540
Increase on 2008	36,054	-8,403	-33,672	-38,984	8,465	-36,540
Percentage change from 2008	2%	-1%	-12%	-13%	11%	-1%
Percentage of total for 2009	67%	17%	7%	7%	2%	100%
2008 Totals	2,377,791	628,469	277,003	296,130	76,687	3,656,080

Note. Neuromuscular blocking agents (NMBA) were used in 3,594 procedures in 2009. 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

Species of animal	Field of research										Number of procedures		
	Anatomy	Physiology	Biochemistry	Psychology	Pathology	Immunology	Microbiology	Parasitology	Pharmacology	Pharmaceutical R&D	Therapeutics	Clinical medicine	Clinical surgery
Mammal													
Mouse	239,479	293,984	37,020	41,614	60,420	439,515	35,247	24,021	38,714	158,696	10,408	7,909	141
Rat	6,075	39,638	4,125	11,166	2,049	4,523	467	800	21,296	100,695	2,162	5,909	1,229
Guinea pig	-	406	-	-	-	100	193	9	2,492	9,520	79	-	-
Hamster	-	164	-	-	-	45	208	461	-	146	330	-	-
Gerbil	-	2	-	-	-	69	-	319	-	240	41	-	-
Other rodent	10	4	-	127	21	-	94	-	-	-	-	-	-
Rabbit	4	518	134	-	97	974	423	179	55	1,902	94	55	43
Cat	-	46	-	-	-	30	-	-	116	-	-	-	-
Dog	-	-	-	-	-	-	-	-	-	-	-	-	-
Beagle	-	-	-	-	-	-	-	-	-	710	-	-	-
Greyhound	-	-	-	-	-	-	-	-	-	-	-	-	-
Other including cross-bred dogs	-	-	-	-	-	-	-	-	-	-	-	2	-
Ferret	6	80	-	37	-	202	511	-	12	3	-	-	-
Other carnivore	-	-	-	31	-	-	-	-	7	-	-	-	-
Horse and other equids	2	66	-	-	-	46	8,521	-	53	-	2	-	-
Pig	24	129	-	682	31	174	386	16	14	67	234	62	35
Goat	-	-	3	79	-	39	-	-	-	3	-	-	-
Sheep	183	929	248	-	420	353	30,261	1,017	-	200	169	365	221
Cattle	-	207	-	-	2	478	242	226	77	-	11	-	-
Deer	-	-	-	-	-	-	-	-	-	-	-	-	-
Camelid	-	-	-	-	-	-	-	-	-	-	-	-	-
Other ungulate	-	-	-	-	-	22	-	-	-	-	-	-	-

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

Species of animal	Field of research										Number of procedures		
	Anatomy	Physiology	Biochemistry	Psychology	Pathology	Immunology	Microbiology	Parasitology	Pharmacology	Pharmaceutical R&D	Therapeutics	Clinical medicine	Clinical surgery
Primate	-	-	-	-	-	-	-	-	-	-	-	-	-
Prosimian	-	-	-	-	-	-	-	-	-	-	-	-	-
New World monkey	-	108	-	26	14	16	4	-	61	271	26	-	-
marmoset, tamarin	-	-	-	-	-	-	-	-	-	-	-	-	-
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	-	-	-	-
Other New World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-
Old World monkey	2	83	-	4	21	41	116	-	-	315	-	2	-
Macaque	-	-	-	-	-	-	-	-	-	-	-	-	-
Baboon	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Old World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-
Ape	-	-	-	-	-	-	-	-	-	-	-	-	-
Gibbon	-	-	-	-	-	-	-	-	-	-	-	-	-
Great ape	-	-	-	-	-	-	-	-	-	-	-	-	-
Other mammal	-	13	-	-	243	-	-	-	-	-	-	-	-
Bird	917	299	67	1,878	240	787	6,333	89,132	-	137	50	-	-
Domestic fowl (<i>Gallus domesticus</i>)	-	-	-	-	-	-	535	337	-	588	-	-	-
Turkey	-	-	-	-	-	-	-	-	-	-	-	-	-
Quail (<i>Coturnix coturnix</i>)	-	-	-	-	-	-	-	-	-	-	-	-	-
Quail (spp. other than <i>Coturnix coturnix</i>)	-	-	-	-	-	-	-	-	-	-	-	-	-
Other bird	30	32	-	340	-	215	168	-	-	-	-	-	-
Reptile - any reptilian species	-	-	-	-	-	-	-	-	-	-	-	-	-
Amphibian - any amphibian species	12,121	591	826	-	-	-	1,000	-	20	-	-	-	-
Fish - any fish species	118,524	15,368	64	1,483	5,582	12,270	8,338	6,837	-	8,930	-	120	-
Cephalopod - <i>Octopus vulgaris</i>	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	377,377	352,667	42,487	57,467	69,140	459,899	93,047	123,354	62,917	282,423	13,606	14,422	1,671
Increase on 2008	32,134	-87,699	9,836	6,300	1,589	14,129	-1,981	1,272	4,407	-106,854	-13,605	-1,064	-1,164
Percentage change from 2008	9%	-20%	30%	12%	2%	3%	-2%	1%	8%	-27%	-50%	-7%	-41%
Percentage of total for 2009	12%	11%	1%	2%	2%	14%	3%	4%	2%	9%	0.4%	0.5%	0.1%
2008 Totals	345,243	440,366	32,651	51,167	67,551	445,770	95,028	122,082	56,510	389,277	27,211	15,486	2,835

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

Species of animal	Field of research										Number of procedures			
	Dentistry	Genetics	Molecular biology	Cancer research	Nutrition	Zoology	Botany	Animal science	Ecology	Animal welfare	Other	Tobacco (1)	Alcohol	Total
Mammal														
Mouse	8	328,217	161,691	416,349	3,327	-	18	4,288	-	76	138,405	-	430	2,439,977
Rat	57	1,771	2,671	4,078	2,465	-	8	-	-	47	5,077	-	80	216,388
Guinea pig	-	-	-	-	-	-	-	-	-	-	-	-	-	12,799
Hamster	-	-	-	6	52	6	-	-	-	-	-	-	-	1,418
Gerbil	-	-	-	257	-	-	-	-	-	-	-	-	-	928
Other rodent	-	-	-	-	-	310	-	-	1,682	4	-	-	-	2,252
Rabbit	-	-	-	2	-	-	3	12	-	70	7	-	-	4,572
Cat	-	-	-	-	9	-	-	-	-	-	-	-	-	201
Dog	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beagle	-	-	-	18	-	-	-	-	-	96	-	-	-	824
Greyhound	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other including cross-bred dogs	-	-	-	-	46	-	-	-	-	-	-	-	-	48
Ferret	-	-	-	-	-	-	-	-	-	-	-	-	-	851
Other carnivore	-	-	-	-	-	89	-	-	436	14	-	-	-	577
Horse and other equids	-	39	-	-	-	-	-	-	-	-	-	-	-	8,729
Pig	-	2	-	-	1	-	-	-	-	54	-	-	-	1,911
Goat	-	-	-	-	-	-	-	-	-	-	-	-	-	124
Sheep	-	205	-	-	170	-	-	1,917	-	453	577	-	-	37,688
Cattle	-	842	-	-	270	-	-	533	-	-	-	-	-	2,888
Deer	-	71	-	-	-	-	-	-	-	-	-	-	-	71
Camelid	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other ungulate	-	-	-	-	-	-	-	-	-	-	-	-	-	22

(1) Following a decision in 1997, procedures using animals in research on tobacco have not been allowed.

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

Species of animal	Field of research											Number of procedures		
	Dentistry	Genetics	Molecular biology	Cancer research	Nutrition	Zoology	Botany	Animal science	Ecology	Animal welfare	Other	Tobacco (1)	Alcohol	Total
Primate														
Prosimian	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New World monkey														
marmoset, tamarin	-	-	4	-	-	-	-	-	-	-	-	-	-	530
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other New World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Old World monkey														
Macaque	-	-	-	-	-	-	-	-	-	-	-	-	-	584
Baboon	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Old World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ape														
Gibbon	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Great ape	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other mammal														
Other mammal	-	4	-	-	-	-	-	-	1,041	14	-	-	-	1,315
Bird														
Domestic fowl (<i>Gallus domesticus</i>)	-	861	-	-	412	255	-	621	-	387	-	-	-	102,376
Turkey	-	-	-	-	734	-	-	-	-	52	-	-	-	2,246
Quail (<i>Coturnix coturnix</i>)	-	-	-	-	-	20	-	-	-	-	-	-	-	20
Quail (sp. other than <i>Coturnix coturnix</i>)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other bird	-	434	-	-	-	3,057	-	2	4,167	-	-	-	-	8,445
Reptile - any reptilian species	-	-	-	-	-	459	-	-	1	-	-	-	-	460
Amphibian - any amphibian species	-	3,399	100	1,372	-	600	2	-	684	-	-	-	-	20,715
Fish - any fish species	-	31,261	5,283	11,123	2,714	3,216	-	-	81,351	71	-	-	-	312,535
Cephalopod - <i>Octopus vulgaris</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	65	367,106	169,749	433,205	10,200	8,012	31	7,373	89,362	1,338	144,066	-	510	3,181,494
Increase on 2008	34	67,558	9,197	42,808	-18	1,323	24	-3,752	62,132	-130	-27,325	0	313	9,464
Percentage change from 2008	110%	23%	6%	11%	-0.2%	20%	343%	-34%	228%	-9%	-16%	N/A	159%	0.3%
Percentage of total for 2009	0.0%	12%	5%	14%	0.3%	0.3%	0.0%	0.2%	3%	0.0%	5%	0%	0.0%	100%
2008 Totals	31	299,548	160,552	390,397	10,218	6,689	7	11,125	27,230	1,468	171,391	0	197	3,172,030

(1) Following a decision in 1997, procedures using animals in research on tobacco have not been allowed.

N/A = Not applicable

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

Species of animal	Field of research										Number of animals		
	Anatomy	Physiology	Biochemistry	Psychology	Pathology	Immunology	Microbiology	Parasitology	Pharmacology	Pharmaceutical R&D	Therapeutics	Clinical medicine	Clinical surgery
Mammal													
Mouse	239,240	293,635	36,871	41,592	59,965	436,239	35,247	24,021	38,441	156,682	10,408	7,539	141
Rat	6,075	39,622	4,125	10,550	2,049	4,523	467	560	21,127	91,512	2,162	5,764	1,224
Guinea pig	-	406	-	-	-	100	141	9	2,492	9,462	79	-	-
Hamster	-	164	-	-	-	45	208	202	-	146	330	-	-
Gerbil	-	2	-	-	-	69	-	319	-	240	41	-	-
Other rodent	10	4	-	127	21	-	94	-	-	-	-	-	-
Rabbit	4	518	16	-	97	974	373	93	55	1,902	94	55	43
Cat	-	46	-	-	-	30	-	-	30	-	-	-	-
Dog	-	-	-	-	-	-	-	-	-	-	-	-	-
Beagle	-	-	-	-	-	-	-	-	-	243	-	-	-
Greyhound	-	-	-	-	-	-	-	-	-	-	-	-	-
Other including cross-bred dogs	-	-	-	-	-	-	-	-	-	-	-	2	-
Ferret	6	80	-	37	-	202	441	-	12	3	-	-	-
Other carnivore	-	-	-	31	-	-	-	-	-	-	-	-	-
Horse and other equids	2	24	-	-	-	17	97	-	-	-	2	-	-
Pig	24	129	-	682	31	161	386	16	14	67	226	62	35
Goat	-	3	3	79	-	39	-	-	-	3	-	-	-
Sheep	183	911	248	-	420	342	611	846	-	132	169	329	221
Cattle	-	190	-	-	2	448	242	157	77	-	-	-	-
Deer	-	-	-	-	-	-	-	-	-	-	-	-	-
Camelid	-	-	-	-	-	-	-	-	-	-	-	-	-
Other ungulate	-	-	-	-	-	22	-	-	-	-	-	-	-

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

Species of animal	Field of research										Number of animals		
	Anatomy	Physiology	Biochemistry	Psychology	Pathology	Immunology	Microbiology	Parasitology	Pharmacology	Pharmaceutical R&D	Therapeutics	Clinical medicine	Clinical surgery
Primate													
Prosimian	-	-	-	-	-	-	-	-	-	-	-	-	-
New World monkey													
marmoset, tamarin	-	77	-	26	14	16	3	-	61	209	26	-	-
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	-	-	-	-
Other New World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-
Old World monkey													
Macaque	2	66	-	1	-	33	100	-	-	57	-	-	2
Baboon	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Old World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-
Ape													
Gibbon	-	-	-	-	-	-	-	-	-	-	-	-	-
Great ape	-	-	-	-	-	-	-	-	-	-	-	-	-
Other mammal													
	-	13	-	-	243	-	-	-	-	-	-	-	-
Bird													
Domestic fowl (Gallus domesticus)	917	299	67	1,878	240	787	6,333	89,132	-	137	50	-	-
Turkey	-	-	-	-	-	-	371	337	-	574	-	-	-
Quail (Coturnix coturnix)	-	-	-	-	-	-	-	-	-	-	-	-	-
Quail (spp.other than Coturnix coturnix)	-	-	-	-	-	-	-	-	-	-	-	-	-
Other bird	30	32	-	269	-	215	168	-	-	-	-	-	-
Reptile - any reptilian species	-	-	-	-	-	-	-	-	-	-	-	-	-
Amphibian - any amphibian species	6,558	153	139	-	-	-	1,000	-	20	-	-	-	-
Fish - any fish species	118,291	15,368	64	1,483	5,582	12,270	8,338	6,837	-	8,930	-	40	-
Cephalopod - <i>Octopus vulgaris</i>	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	371,342	351,739	41,533	56,755	68,664	456,532	54,620	122,529	62,329	270,299	13,587	13,791	1,666

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

Species of animal	Field of research											Number of animals			
	Dentistry	Genetics	Molecular biology	Cancer research	Nutrition	Zoology	Botany	Animal science	Ecology	Animal welfare	Other	Tobacco(1)	Alcohol	Total	
Mammal															
Mouse	8	328,187	161,544	414,287	3,327	-	18	4,288	-	76	138,405	-	430	2,430,591	
Rat	57	1,771	2,671	4,078	2,465	-	8	-	-	47	5,077	-	80	206,014	
Guinea pig	-	-	-	-	-	-	-	-	-	-	-	-	-	12,689	
Hamster	-	-	-	6	52	-	-	-	-	-	-	-	-	1,153	
Gerbil	-	-	-	257	-	-	-	-	-	-	-	-	-	928	
Other rodent	-	-	-	-	-	310	-	-	1,682	4	-	-	-	2,252	
Rabbit	-	-	-	2	-	-	3	12	-	70	7	-	-	4,318	
Cat	-	-	-	-	-	-	-	-	-	-	-	-	-	106	
Dog	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Beagle	-	-	-	6	-	-	-	-	-	96	-	-	-	345	
Greyhound	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other including cross-bred dogs	-	-	-	-	27	-	-	-	-	-	-	-	-	29	
Ferret	-	-	-	-	-	-	-	-	-	-	-	-	-	781	
Other carnivore	-	-	-	-	-	-	-	-	436	14	-	-	-	570	
Horse and other equids	-	39	-	-	-	89	-	-	-	-	-	-	-	181	
Pig	-	2	-	-	1	-	-	-	-	54	-	-	-	1,890	
Goat	-	-	-	-	-	-	-	-	-	-	-	-	-	124	
Sheep	-	205	-	-	162	-	-	1,891	-	453	577	-	-	7,700	
Cattle	-	321	-	-	218	-	-	304	-	-	-	-	-	1,959	
Deer	-	71	-	-	-	-	-	-	-	-	-	-	-	71	
Camelid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other ungulate	-	-	-	-	-	-	-	-	-	-	-	-	-	22	

(1) Following a decision in 1997, procedures using animals in research on tobacco have not been allowed.

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

Species of animal	Field of research										Number of animals			
	Dentistry	Genetics	Molecular biology	Cancer research	Nutrition	Zoology	Botany	Animal science	Ecology	Animal welfare	Other	Tobacco(1)	Alcohol	Total
Primate														
Prosimian	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New World monkey														
marmoset, tamarin	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	432
Other New World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Old World monkey														
Macaque	-	-	-	-	-	-	-	-	-	-	-	-	-	261
Baboon	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Old World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ape														
Gibbon	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Great ape	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other mammal														
Other mammal	-	4	-	-	-	-	-	-	956	-	-	-	-	1,230
Bird														
Domestic fowl (<i>Gallus domesticus</i>)	-	861	-	-	412	255	-	621	-	-	-	-	-	102,376
Turkey	-	-	-	-	734	-	-	-	-	-	-	-	-	2,068
Quail (<i>Coturnix coturnix</i>)	-	-	-	-	-	20	-	-	-	-	-	-	-	20
Quail (spp.other than <i>Coturnix coturnix</i>)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other bird	-	434	-	-	-	2,958	-	2	4,152	-	-	-	-	8,260
Reptile - any reptilian species	-	-	-	-	-	459	-	-	1	-	-	-	-	460
Amphibian - any amphibian species	-	3,242	100	363	-	600	-	-	684	-	-	-	-	12,859
Fish - any fish species	-	31,261	5,283	11,123	2,714	3,216	-	-	81,027	-	-	-	-	311,898
Cephalopod - <i>Octopus vulgaris</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	65	366,398	169,598	430,122	10,112	7,907	29	7,118	86,938	1,338	144,066	-	510	3,111,587

(1) Following a decision in 1997, procedures using animals in research on tobacco have not been allowed.

Table 6.1 Scientific procedures (non-toxicology) by species of animal and field of research
(animals with a harmful genetic defect)

Great Britain 2009 Species of animal	Field of research											Number of procedures			
	Anatomy	Physiology	Biochemistry	Psychology	Pathology	Immunology	Microbiology	Parasitology	Pharmacology	Pharmaceutical R&D	Therapeutics	Clinical medicine	Clinical surgery		
Mammal															
Mouse	11,126	92,323	429	615	3,081	18,200	95	298	166	2,930	863	323	-		
Rat	1,322	4,848	-	5	-	260	-	-	72	851	16	1,942	-		
All other rodents															
Rabbit	-	-	-	-	-	-	-	-	-	-	-	-	-		
Cat	-	-	-	-	-	-	-	-	-	-	-	-	-		
Dog	-	-	-	-	-	-	-	-	-	-	-	-	-		
Other including cross-bred dogs	-	-	-	-	-	-	-	-	-	-	-	-	-		
Ferrets, other carnivores, ungulates, primates and other mammals															
Bird	-	-	-	-	-	-	-	-	-	-	-	-	-		
Domestic fowl (<i>Gallus domesticus</i>)	-	-	-	-	-	-	-	-	-	-	-	-	-		
Amphibian															
Any amphibian species	2,953	-	-	-	-	-	-	-	-	-	-	-	-		
Fish															
Any fish species	24,486	94	19	-	121	45	-	-	-	-	-	-	-		
Total	39,887	97,265	448	620	3,202	18,505	95	298	238	3,781	879	2,265	-		

Table 6.1 (Continued)

Great Britain 2009 Species of animal	Field of research											Number of procedures			
	Dentistry	Genetics	Molecular biology	Cancer research	Nutrition	Zoology	Botany	Animal science	Ecology	Animal welfare	Other	Tobacco(1)	Alcohol	Total	
Mammal															
Mouse	-	50,777	4,953	103,248	300	-	-	-	-	36	40,187	-	-	329,950	
Rat	-	1,606	680	1,580	-	-	-	-	-	-	2,942	-	-	16,124	
All other rodents															
Rabbit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dog	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other including cross-bred dogs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ferrets, other carnivores, ungulates, primates and other mammals															
Bird	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Domestic fowl (<i>Gallus domesticus</i>)	-	361	-	-	-	-	-	-	-	-	-	-	-	361	
Amphibian															
Any amphibian species	-	2,811	-	-	-	-	-	-	-	-	-	-	-	5,764	
Fish															
Any fish species	-	2,922	799	689	-	-	-	-	-	-	-	-	-	29,175	
Total	-	58,477	6,432	105,517	300	-	-	-	-	36	43,129	-	-	381,374	

(1) Following a decision in 1997, procedures using animals in research on tobacco have not been allowed.

Table 6.2 Scientific procedures (non-toxicology) by species of animal and field of research
(genetically modified animals)

Species of animal	Field of research											Number of procedures		
	Anatomy	Physiology	Biochemistry	Psychology	Pathology	Immunology	Microbiology	Parasitology	Pharmacology	Pharmaceutical R&D	Therapeutics	Clinical medicine	Clinical surgery	
Mammal	152,695	156,757	25,354	25,951	36,524	298,007	11,168	6,239	17,863	39,112	3,946	3,779	42	
Mouse	1,138	1,814	-	153	56	134	-	-	16	48	32	119	58	
All other rodents	-	-	-	-	-	-	-	-	-	-	-	-	-	
Rabbit	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cat	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dog	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other including cross-bred dogs	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ferrets, other carnivores, ungulates, primates and other mammals	9	34	-	178	-	-	-	-	-	-	-	-	-	
Bird	79	-	-	-	-	-	-	-	-	50	-	-	-	
Domestic fowl (<i>Gallus domesticus</i>)	-	-	-	-	-	-	-	-	-	-	-	-	-	
Amphibian	1,545	-	-	-	-	-	-	-	-	-	-	-	-	
Any amphibian species	-	-	-	-	-	-	-	-	-	-	-	-	-	
Fish	71,114	1,059	-	-	2,335	5,746	-	-	-	2,254	-	120	-	
Total	226,580	159,664	25,354	26,282	38,915	303,887	11,168	6,239	17,879	41,414	4,028	4,018	100	

Table 6.2 (Continued)

Species of animal	Field of research											Number of procedures		
	Dentistry	Genetics	Molecular biology	Cancer research	Nutrition	Zoology	Botany	Animal science	Ecology	Animal welfare	Other	Tobacco(1)	Alcohol	
Mammal	8	171,651	126,943	235,273	686	-	-	3,859	-	-	87,231	-	242	
Mouse	-	-	388	16	-	-	-	-	-	-	548	-	-	
All other rodents	-	-	-	-	-	-	-	-	-	-	-	-	-	
Rabbit	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cat	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dog	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other including cross-bred dogs	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ferrets, other carnivores, ungulates, primates and other mammals	-	-	-	-	-	-	-	-	-	-	-	-	221	
Bird	-	-	-	-	-	-	-	-	-	-	-	-	129	
Domestic fowl (<i>Gallus domesticus</i>)	-	-	-	-	-	-	-	-	-	-	-	-	-	
Amphibian	-	-	-	-	-	-	-	-	-	-	-	-	-	
Any amphibian species	-	-	-	-	-	-	-	-	-	-	-	-	-	
Fish	-	4,345	4,484	10,385	-	-	-	-	80	-	-	-	-	
Any fish species	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total	8	175,996	131,815	245,674	686	-	-	3,859	80	-	87,779	-	242	
														1,511,667

(1) Following a decision in 1997, procedures using animals in research on tobacco have not been allowed.

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

Species of animal	Production							Number of procedures	
	Infectious agents	Vectors	Neoplasms	Monoclonal antibodies (ascites model)	Monoclonal antibodies (initial immunisation)	Polyclonal antibodies	Other biological materials	Other ⁽¹⁾	Total
Mammal									
Mouse	22,377	6,433	10,338	-	2,146	3,672	97,467	2,297,544	2,439,977
Rat	603	288	303	-	170	68	16,559	198,397	216,388
All other rodents	610	308	6	-	-	100	146	16,227	17,397
Rabbit	40	87	-	-	10	2,184	419	1,832	4,572
Cat	-	-	-	-	-	-	-	201	201
Dog	-	-	-	-	-	-	379	493	872
Ferret	-	-	-	-	-	63	216	572	851
Other carnivore	-	-	-	-	-	-	89	488	577
Horse and other equids	-	-	-	-	-	-	5,974	2,755	8,729
Pigs, sheep & all other ungulates	855	2	6	-	38	1,104	29,198	11,501	42,704
Primate									
New World monkey	-	-	-	-	-	-	219	311	530
Old World monkey	-	-	-	-	-	-	235	349	584
All other mammals	-	-	-	-	-	-	-	1,315	1,315
Bird	89,339	-	-	-	96	667	1,616	21,369	113,087
Reptile, Amphibian	-	-	-	-	-	-	8,554	12,621	21,175
Fish	10,005	-	1,221	-	-	43	18,194	283,072	312,535
Total	123,829	7,118	11,874	-	2,460	7,901	179,265	2,849,047	3,181,494
Increase on 2008	2,426	829	-370	0	-1,540	1,806	9,741	-3,428	9,464
Percentage change from 2008	2%	13%	-3%	N/A	-39%	30%	6%	-0.1%	0.3%
Percentage of total for 2009	4%	0.2%	0.4%	0%	0.1%	0.2%	6%	90%	100%
2008 Totals	121,403	6,289	12,244	0	4,000	6,095	169,524	2,852,475	3,172,030

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

N/A = Not applicable

Table 8 Scientific procedures (non-toxicology) by species of animal and techniques of particular interest

Species of animal	Techniques of particular interest										Number of procedures	
	Interference with organs of special sense	Injection into brain	Interference with brain	Psychological stress	Aversive training	Radiation	Inhalation	Thermal injury	Physical trauma	All other techniques	Total	
Mammal												
Mouse	11,867	8,386	6,055	1,199	4,281	20,725	38,809	-	2,696	2,345,959	2,439,977	
Rat	8,111	134	11,976	1,442	4,712	210	14,754	6	4,815	170,228	216,388	
All other rodents	293	-	396	-	-	-	6,686	-	4	10,018	17,397	
Rabbit	196	-	5	-	-	-	18	-	24	4,329	4,572	
Cat	31	-	-	-	-	-	-	-	-	170	201	
Dog	-	-	-	-	-	-	6	-	-	866	872	
Ferret	74	-	-	-	-	-	-	-	-	777	851	
Other carnivore	-	-	-	-	-	-	-	-	14	563	577	
Horse and other equids	-	-	-	-	-	-	-	-	-	8,729	8,729	
Pigs, sheep & all other ungulate	113	40	77	363	-	-	-	-	167	41,944	42,704	
Primate												
New World monkey	-	-	26	-	2	-	40	-	-	462	530	
Old World monkey	16	-	48	-	-	-	41	-	-	479	584	
All other mammals	16	-	-	-	-	-	-	-	14	1,285	1,315	
Bird	-	40	-	-	1,348	-	-	-	-	111,699	113,087	
Reptile, amphibian	4	-	-	-	-	-	-	-	-	21,171	21,175	
Fish	600	-	-	120	-	-	-	-	362	311,453	312,535	
Total	21,321	8,600	18,583	3,124	10,343	20,935	60,354	6	8,096	3,030,132	3,181,494	
Increase on 2008	-3,613	-6,480	-1,423	-68	3,826	3,578	-4,957	6	-4,755	23,350	9,464	
Percentage change from 2008	-14%	-43%	-7%	-2%	59%	21%	-8%	N/A	-37%	1%	0.3%	
Percentage of total for 2009	1%	0%	1%	0%	0%	1%	2%	0.0%	0%	95%	100%	
2008 Totals	24,934	15,080	20,006	3,192	6,517	17,357	65,311	0	12,851	3,006,782	3,172,030	

N/A = Not applicable

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

Great Britain 2009 Species of animal	Toxicology or other safety/efficacy evaluation										Number of procedures	
	General safety/efficacy evaluation										Finished cosmetics(2)	Cosmetics ingredients(2)
	Pollution	Agriculture	Industry	Household	Food additives	Other foodstuffs						
Mammal												
Mouse	589	4,564	5,792	-	-	7,670	-	-	-	-	-	-
Rat	281	11,836	11,612	-	877	120	-	-	-	-	-	-
Guinea pig	-	-	-	-	-	-	-	-	-	-	-	-
Hamster	-	-	-	-	-	-	-	-	-	-	-	-
Gerbil	-	-	-	-	-	-	-	-	-	-	-	-
Other rodent	-	60	-	-	-	-	-	-	-	-	-	-
Rabbit	-	214	634	-	24	-	-	-	-	-	-	-
Cat	-	-	-	-	-	-	-	-	-	-	-	-
Dog	-	-	-	-	-	-	-	-	-	-	-	-
Beagle	-	56	32	-	-	-	-	-	-	-	-	-
Greyhound	-	-	-	-	-	-	-	-	-	-	-	-
Other including cross-bred dogs	-	-	-	-	-	-	-	-	-	-	-	-
Ferret	-	-	-	-	-	-	-	-	-	-	-	-
Other carnivore	-	-	-	-	-	-	-	-	-	-	-	-
Horse, donkey and cross-bred equids	-	-	-	-	-	-	-	-	-	-	-	-
Pig	-	25	-	-	-	240	-	-	-	-	-	-
Goat	-	9	-	-	-	-	-	-	-	-	-	-
Sheep	-	-	-	-	-	-	-	-	-	-	-	-
Cattle	-	162	-	-	-	-	-	-	-	-	-	-
Deer	-	-	-	-	-	-	-	-	-	-	-	-
Camelid	-	-	-	-	-	-	-	-	-	-	-	-
Other ungulate	-	-	-	-	-	-	-	-	-	-	-	-

(2) Following a decision in 1998, procedures using animals in research on finished cosmetics and on cosmetic ingredients have not been allowed.

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

Species of animal	Toxicology or other safety/efficacy evaluation										Number of procedures	
	General safety/efficacy evaluation										Finished cosmetics(2)	Cosmetics ingredients(2)
	Pollution	Agriculture	Industry	Household	Food additives	Other foodstuffs						
Primate												
Prosimian	-	-	-	-	-	-	-	-	-	-	-	-
New World monkey												
marmoset, tamarin	-	-	-	-	-	-	-	-	-	-	-	-
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	-	-	-
Other New World monkey	-	-	-	-	-	-	-	-	-	-	-	-
Old World monkey												
Macaque	-	-	-	-	-	-	-	-	-	-	-	-
Baboon	-	-	-	-	-	-	-	-	-	-	-	-
Other Old World monkey	-	-	-	-	-	-	-	-	-	-	-	-
Ape												
Gibbon	-	-	-	-	-	-	-	-	-	-	-	-
Great Ape	-	-	-	-	-	-	-	-	-	-	-	-
Other mammal												
Bird												
Domestic fowl (Gallus domesticus)	-	276	-	-	-	-	-	-	-	-	-	-
Turkey	-	-	-	-	-	-	-	-	-	-	-	-
Quail (Coturnix coturnix)	-	-	-	-	-	-	-	-	-	-	-	-
Quail (spp, other than Coturnix coturnix)	-	500	-	-	-	-	-	-	-	-	-	-
Other bird	-	309	-	-	-	-	-	-	-	-	-	-
Reptile - any reptilian species	-	-	-	-	-	-	-	-	-	-	-	-
Amphibian - any amphibian species	-	-	-	-	-	-	-	-	-	-	-	-
Fish - any fish species	14,956	966	299	-	-	-	-	-	-	-	-	-
Total	15,826	18,977	18,369	-	901	8,030	-	8,030	-	-	-	-
Increase on 2008	4,810	1,843	-5,143	-132	530	436	0	436	0	0	0	0
Percentage change from 2008	44%	11%	-22%	-100%	143%	6%	N/A	6%	N/A	N/A	N/A	N/A
Percentage of total for 2009	4%	4%	4%	0%	0.2%	2%	0%	2%	0%	0%	0%	0%
2008 Totals	11,016	17,134	23,512	132	371	7,594	0	7,594	0	0	0	0

N/A = Not applicable

(2) Following a decision in 1998, procedures using animals in research on finished cosmetics and on cosmetic ingredients have not been allowed.

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

Species of animal	Toxicology or other safety/efficacy evaluation										Number of procedures											
	Pharmaceutical safety/efficacy evaluation					Other purposes					Total											
	Safety testing	Efficacy testing	Quality control	ADME and residue	Toxicology research	Tobacco safety(1)	Medical device safety	Method development	Other													
Mammal																						
Mouse	40,103	9,775	99,796	14,435	1,342	-	617	2,848	1,048												188,579	
Rat	70,446	182	1,558	13,644	679	-	37	4,001	2,204													117,477
Guinea pig	1,367	58	4,845	-	-	-	-	90	-													6,360
Hamster	934	735	-	8	-	-	-	62	-													1,739
Gerbil	-	-	-	-	-	-	-	-	-													-
Other rodent	-	-	-	-	-	-	-	-	-													252
Rabbit	6,304	24	3,697	124	-	-	772	178	19													11,990
Cat	72	2	-	-	-	-	-	-	-													74
Dog																						
Beagle	3,706	34	-	1,059	-	-	-	153	-													5,040
Greyhound	-	-	-	-	-	-	-	-	-													-
Other including cross-bred dogs	-	11	-	-	-	-	-	-	-													11
Ferret	-	29	-	10	-	-	-	-	-													39
Other carnivore	370	48	-	-	-	-	-	-	-													418
Horse and other equids	-	-	2	16	-	-	-	-	-													18
Pig	574	743	4	162	18	-	12	65	3													1,846
Goat	-	-	-	-	-	-	-	-	-													9
Sheep	60	10	136	6	-	-	3	-	100													315
Cattle	294	451	484	48	-	-	-	27	4													1,470
Deer	-	-	-	-	-	-	-	-	-													-
Camelid	-	-	-	-	-	-	-	-	-													-
Other ungulate	-	-	-	-	-	-	-	-	-													-

(1) Following a decision in 1997, procedures using animals in research on tobacco have not been allowed.

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

Species of animal	Toxicology or other safety/efficacy evaluation										Number of procedures						
	Pharmaceutical safety/efficacy evaluation					Other purposes					Total						
	Safety testing	Efficacy testing	Quality control	ADME and residue	Toxicology research	Tobacco safety(1)	Medical device safety	Method development	Other								
Primate																	
Prosimian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New World monkey	89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	89
marmoset, tamarin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other New World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Old World monkey	1,969	37	10	538	-	-	-	-	-	-	-	506	-	-	-	-	3,060
Macaque	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Baboon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Old World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ape																	
Gibbon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Great Ape	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other mammal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bird																	
Domestic fowl (Gallus domesticus)	2,127	8,972	550	-	-	-	-	-	-	-	-	-	-	-	-	-	11,925
Turkey	650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	650
Quail (Coturnix coturnix)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Quail (spp.other than Coturnix coturnix)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other bird	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	500
Reptile - any reptilian species	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amphibian - any amphibian species	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fish - any fish species	27,116	24,471	-	478	2,326	-	-	-	-	-	-	14,954	-	-	-	-	85,566
Total	156,491	45,582	111,082	30,528	4,365	-	1,441	22,884	3,570	438,046	-	1,441	22,884	3,570	438,046	-	438,046
Increase on 2008	-39,072	3,532	-6,435	1,168	936	0	1,063	-9,644	104	-46,004	0	1,063	-9,644	104	-46,004	0	-46,004
Percentage change from 2008	-20%	8%	-5%	4%	27%	N/A	281%	-30%	3%	-10%	N/A	281%	-30%	3%	-10%	N/A	-10%
Percentage of total for 2009	36%	10%	25%	7%	1%	0%	0.3%	5%	1%	100%	0%	0.3%	5%	1%	100%	0%	100%
2008 Totals	195,563	42,050	117,517	29,360	3,429	0	378	32,528	3,466	484,050	0	378	32,528	3,466	484,050	0	484,050

(1) Following a decision in 1997, procedures using animals in research on tobacco have not been allowed.

N/A = Not applicable

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

Species of animal	Toxicology or other safety/efficacy evaluation										Number of animals	
	General safety/efficacy evaluation										Finished cosmetics(2)	Cosmetics ingredients(2)
	Pollution	Agriculture	Industry	Household	Food additives	Other foodstuffs						
Mammal												
Mouse	589	4,564	5,792	-	-	7,670	-	-	-	-	-	-
Rat	281	11,826	11,612	-	877	120	-	-	-	-	-	-
Guinea pig	-	-	-	-	-	-	-	-	-	-	-	-
Hamster	-	-	-	-	-	-	-	-	-	-	-	-
Gerbil	-	-	-	-	-	-	-	-	-	-	-	-
Other rodent	-	60	-	-	-	-	-	-	-	-	-	-
Rabbit	-	214	634	-	24	-	-	-	-	-	-	-
Cat	-	-	-	-	-	-	-	-	-	-	-	-
Dog	-	-	-	-	-	-	-	-	-	-	-	-
Beagle	-	56	32	-	-	-	-	-	-	-	-	-
Greyhound	-	-	-	-	-	-	-	-	-	-	-	-
Other including cross-bred dogs	-	-	-	-	-	-	-	-	-	-	-	-
Ferret	-	-	-	-	-	-	-	-	-	-	-	-
Other carnivore	-	-	-	-	-	-	-	-	-	-	-	-
Horse and other equids	-	-	-	-	-	-	-	-	-	-	-	-
Pig	-	25	-	-	-	240	-	-	-	-	-	-
Goat	-	9	-	-	-	-	-	-	-	-	-	-
Sheep	-	-	-	-	-	-	-	-	-	-	-	-
Cattle	-	161	-	-	-	-	-	-	-	-	-	-
Deer	-	-	-	-	-	-	-	-	-	-	-	-
Camelid	-	-	-	-	-	-	-	-	-	-	-	-
Other ungulate	-	-	-	-	-	-	-	-	-	-	-	-

(2) Following a decision in 1998, procedures using animals in research on finished cosmetics and on cosmetic ingredients have not been allowed.

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

Species of animal	Toxicology or other safety/efficacy evaluation										Number of animals	
	General safety/efficacy evaluation										Finished cosmetics(2)	Cosmetics ingredients(2)
	Pollution	Agriculture	Industry	Household	Food additives	Other foodstuffs						
Primate	-	-	-	-	-	-	-	-	-	-	-	-
Prosimian	-	-	-	-	-	-	-	-	-	-	-	-
New World monkey	-	-	-	-	-	-	-	-	-	-	-	-
marmoset, tamarin	-	-	-	-	-	-	-	-	-	-	-	-
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	-	-	-
Other New World monkey	-	-	-	-	-	-	-	-	-	-	-	-
Old World monkey	-	-	-	-	-	-	-	-	-	-	-	-
Macaque	-	-	-	-	-	-	-	-	-	-	-	-
Baboon	-	-	-	-	-	-	-	-	-	-	-	-
Other Old World monkey	-	-	-	-	-	-	-	-	-	-	-	-
Ape	-	-	-	-	-	-	-	-	-	-	-	-
Gibbon	-	-	-	-	-	-	-	-	-	-	-	-
Great Ape	-	-	-	-	-	-	-	-	-	-	-	-
Other mammal	-	-	-	-	-	-	-	-	-	-	-	-
Bird	-	-	-	-	-	-	-	-	-	-	-	-
Domestic fowl (<i>Gallus domesticus</i>)	-	276	-	-	-	-	-	-	-	-	-	-
Turkey	-	-	-	-	-	-	-	-	-	-	-	-
Quail (<i>Coturnix coturnix</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Quail (spp.other than <i>Coturnix coturnix</i>)	-	500	-	-	-	-	-	-	-	-	-	-
Other bird	-	309	-	-	-	-	-	-	-	-	-	-
Reptile - any reptilian species	-	-	-	-	-	-	-	-	-	-	-	-
Amphibian - any amphibian species	-	-	-	-	-	-	-	-	-	-	-	-
Fish - any fish species	14,956	966	299	-	-	-	-	-	-	-	-	-
Cephalopod - <i>Octopus vulgaris</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total	15,826	18,966	18,369	-	901	8,030	-	-	-	-	-	-

(2)Following a decision in 1998, procedures using animals in research on finished cosmetics and on cosmetic ingredients have not been allowed.

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

Species of animal	Great Britain 2009												Total					
	Pharmaceutical safety/efficacy evaluation						Toxicology or other safety/efficacy evaluation											
	Safety testing	Efficacy testing	Quality control	ADME and residue	Toxicology research	Tobacco safety (1)	Medical device safety	Method development	Other									
Mammal																		
Mouse	39,622	9,775	99,796	14,435	1,342	-	617	2,833	1,048									188,083
Rat	70,055	182	1,558	13,644	679	-	37	3,965	2,204									117,040
Guinea pig	1,367	58	4,845	-	-	-	-	90	-									6,360
Hamster	934	735	-	8	-	-	-	62	-									1,739
Gerbil	-	-	-	-	-	-	-	-	-									-
Other rodent	-	-	-	-	-	-	-	-	192									252
Rabbit	4,348	24	1,590	124	-	-	339	9	19									7,325
Cat	64	2	-	-	-	-	-	-	-									66
Dog																		
Beagle	3,364	32	-	140	-	-	-	120	-									3,744
Greyhound	-	-	-	-	-	-	-	-	-									-
Other including cross-bred dogs	-	11	-	-	-	-	-	-	-									11
Ferret	-	-	-	10	-	-	-	-	-									10
Other carnivore	174	48	-	-	-	-	-	-	-									222
Horse and other equids	-	-	2	16	-	-	-	-	-									18
Pig	481	743	4	94	18	-	12	54	3									1,674
Goat	-	-	-	-	-	-	-	-	-									9
Sheep	60	10	136	6	-	-	3	-	100									315
Cattle	273	418	484	48	-	-	-	27	4									1,415
Deer	-	-	-	-	-	-	-	-	-									-
Camelid	-	-	-	-	-	-	-	-	-									-
Other ungulate	-	-	-	-	-	-	-	-	-									-

(1)Following a decision in 1997, procedures using animals in research on tobacco have not been allowed.

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

Species of animal	Great Britain 2009											Number of animals		
	Pharmaceutical safety/efficacy evaluation					Toxicology or other safety/efficacy evaluation					Total			
	Safety testing	Efficacy testing	Quality control	ADME and residue	Toxicology research	Tobacco safety (1)	Medical device safety	Method development	Other	Total				
Primate														
Prosimian	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New World monkey														
marmoset, tamarin	66	-	-	-	-	-	-	-	-	-	-	-	-	66
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other New World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Old World monkey														
Macaque	1,632	37	-	94	-	-	293	-	-	-	-	-	-	2,056
Baboon	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Old World monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ape														
Gibbon	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Great Ape	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other mammal														
Bird														
Domestic fowl (Gallus domesticus)	2,127	8,972	550	-	-	-	-	-	-	-	-	-	-	11,925
Turkey	650	-	-	-	-	-	-	-	-	-	-	-	-	650
Quail (Coturnix coturnix)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Quail (spp.other than Coturnix coturnix)	-	-	-	-	-	-	-	-	-	-	-	-	-	500
Other bird	310	-	-	-	-	-	-	-	-	-	-	-	-	619
Reptile - any reptilian species	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amphibian - any amphibian species	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fish - any fish species	27,116	24,471	-	478	2,326	-	14,954	-	-	-	-	-	-	85,566
Cephalopod - <i>Octopus vulgaris</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	152,643	45,518	108,965	29,097	4,365	-	22,407	1,008	3,570	429,665				

(1)Following a decision in 1997, procedures using animals in research on tobacco have not been allowed.

Table 10 Scientific procedures (toxicology) by species of animal and type of legislation
Summary version

Note. For numbers of procedures by purpose, see full table available on the website

Species of animal	Great Britain 2008						Number of procedures		
	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	1,839	17	22,047	-	790	154,846	9,040	188,579	
Rat	1,011	52	2,916	-	1,602	103,293	8,603	117,477	
All other rodents	133	-	2,122	-	144	5,856	96	8,351	
Rabbit	472	9	3,393	-	135	7,703	278	11,990	
Cat	2	-	64	-	8	-	-	74	
Dog	17	-	8	-	-	4,479	547	5,051	
Ferret	-	-	-	-	-	10	29	39	
Other carnivore	418	-	-	-	-	-	-	418	
Horse and other equids	-	-	-	-	-	18	-	18	
Pigs, sheep & all other ungulates	4	-	864	-	10	2,660	102	3,640	
Primate									
New World monkey	-	-	-	-	-	89	-	89	
Old World monkey	-	-	-	-	5	3,055	-	3,060	
All other mammals									
Bird	-	-	4,527	-	90	9,028	49	13,694	
Reptile / Amphibian	-	-	-	-	-	-	-	-	
Fish	2,122	-	8,845	-	432	6,084	68,083	85,566	
Total	6,018	78	44,786	-	3,216	297,121	86,827	438,046	
Increase on 2008	2,024	8	5,536	0	-1,483	1,862	-53,951	-46,004	
Percentage change from 2008	51%	11%	14%	N/A	-32%	1%	-38%	-10%	
Percentage of total for 2009	1%	0.0%	10%	0%	1%	68%	20%	100%	
2008 Totals	3,994	70	39,250	0	4,699	295,259	140,778	484,050	

N/A = Not applicable

Table 10 Scientific procedures (toxicology) by species of animal, type of legislation and toxicological purpose
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Species	Legislative requirements	Toxicological purpose			Number of procedures	
		Safety testing other than cosmetics	Pharmaceutical safety	Other safety / Toxicology	Total	Total
Mouse	UK requirements only	667	1,126	46		1,839
	One EU country only (not UK)	17	-	-		17
	EU requirements, incl. European Pharmacopoeia	7,830	13,991	226		22,047
	Requirements of (non-EU) Council of Europe	-	-	-		-
	Requirements of other countries	254	377	159		790
	Any combination of above	9,596	141,436	3,814		154,846
	Non-legislative purposes	251	7,179	1,610		9,040
Total		18,615	164,109	5,855		188,579
Rat	UK requirements only	333	614	64		1,011
	One EU country only (not UK)	52	-	-		52
	EU requirements, incl. European Pharmacopoeia	1,489	1,427	-		2,916
	Requirements of (non-EU) Council of Europe	-	-	-		-
	Requirements of other countries	1,428	137	37		1,602
	Any combination of above	20,943	78,445	3,905		103,293
	Non-legislative purposes	481	5,207	2,915		8,603
Total		24,726	85,830	6,921		117,477
All other rodents	UK requirements only	-	133	-		133
	One EU country only (not UK)	-	-	-		-
	EU requirements, incl. European Pharmacopoeia	-	2,122	-		2,122
	Requirements of (non-EU) Council of Europe	-	-	-		-
	Requirements of other countries	-	144	-		144
	Any combination of above	60	5,542	254		5,856
	Non-legislative purposes	-	6	90		96
Total		60	7,947	344		8,351
Rabbit	UK requirements only	4	468	-		472
	One EU country only (not UK)	9	-	-		9
	EU requirements, incl. European Pharmacopoeia	6	3,378	9		3,393
	Requirements of (non-EU) Council of Europe	-	-	-		-
	Requirements of other countries	58	45	32		135
	Any combination of above	795	6,257	651		7,703
	Non-legislative purposes	-	1	277		278
Total		872	10,149	969		11,990
Cat	UK requirements only	-	2	-		2
	One EU country only (not UK)	-	-	-		-
	EU requirements, incl. European Pharmacopoeia	-	64	-		64
	Requirements of (non-EU) Council of Europe	-	-	-		-
	Requirements of other countries	-	8	-		8
	Any combination of above	-	-	-		-
	Non-legislative purposes	-	-	-		-
Total		-	74	-		74

Table 10 Scientific procedures (toxicology) by species of animal, type of legislation and toxicological purpose
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Species	Legislative requirements	Number of procedures			
		Safety testing other than cosmetics	Toxicological purpose		Total
			Pharmaceutical safety	Other safety / Toxicology	
Dog	UK requirements only	-	17	-	17
	One EU country only (not UK)	-	-	-	-
	EU requirements, incl. European Pharmacopoeia	-	8	-	8
	Requirements of (non-EU) Council of Europe	-	-	-	-
	Requirements of other countries	-	-	-	-
	Any combination of above	88	4,279	112	4,479
Non-legislative purposes	-	506	41	547	
Total		88	4,810	153	5,051
Ferret	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 above	-	10	-	10
Non-legislative purposes	-	29	-	29	
Total		-	39	-	39
Other carnivore	UK requirements only	-	418	-	418
	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 above	-	-	-	-
Non-legislative purposes	-	-	-	-	
Total		-	418	-	418
Horse and other equids	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 above	-	18	-	18
Non-legislative purposes	-	-	-	-	
Total		-	18	-	18
Pigs, sheep & all other ungulates	UK requirements only	-	4	-	4
	One EU country only (not UK)	-	-	-	-
	EU requirements, incl. European Pharmacopoeia	302	562	-	864
	Requirements of (non-EU) Council of Europe	-	-	-	-
	Requirements of other countries	-	10	-	10
	Any combination of above	134	2,329	197	2,660
Non-legislative purposes	-	67	35	102	
Total		436	2,972	232	3,640

Table 10 Scientific procedures (toxicology) by species of animal, type of legislation and toxicological purpose
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Species	Legislative requirements	Toxicological purpose			Number of procedures	
		Safety testing other than cosmetics	Pharmaceutical safety	Other safety / Toxicology	Total	Total
New World monkey	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 above	-	89	-	-	89
Total		-	89	-	-	89
Old World monkey	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	-	5	-	-	5
	Any combination of above	-	2,549	506	-	3,055
Total		-	2,554	506	-	3,060
All other mammals	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 above	-	-	-	-	-
Total		-	-	-	-	-
Bird	UK requirements only	-	-	-	-	-
	One EU country only (not UK)	-	-	-	-	-
	EU requirements, incl. European Pharmacopoeia	14	4,513	-	-	4,527
	Requirements of (non-EU) Council of Europe	-	-	-	-	-
	Requirements of other countries	-	90	-	-	90
	Any combination of above	1,022	8,006	-	-	9,028
Total	1,085	12,609	-	-	13,694	
Reptile / Amphibian	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 above	-	-	-	-	-
Total		-	-	-	-	-

Table 10 Scientific procedures (toxicology) by species of animal, type of legislation and toxicological purpose
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Species	Legislative requirements	Toxicological purpose			Number of procedures	
		Safety testing other than cosmetics	Pharmaceutical safety	Other safety / Toxicology	Total	
Fish	UK requirements only	2,122	-	-	2,122	
	One EU country only (not UK)	-	-	-	-	
	EU requirements, incl. European Pharmacopoeia	4,995	3,850	-	8,845	
	Requirements of (non-EU) Council of Europe	-	-	-	-	
	Requirements of other countries	432	-	-	432	
	Any combination of above	3,526	2,533	25	6,084	
Non-legislative purposes	5,146	45,682	17,255	68,083		
Total		16,221	52,065	17,280	85,566	
All species	UK requirements only	3,126	2,782	110	6,018	
	One EU country only (not UK)	78	-	-	78	
	EU requirements, incl. European Pharmacopoeia	14,636	29,915	235	44,786	
	Requirements of (non-EU) Council of Europe	-	-	-	-	
	Requirements of other countries	2,172	816	228	3,216	
	Any combination of above	36,164	251,493	9,464	297,121	
	Non-legislative purposes	5,927	58,677	22,223	86,827	
	TOTAL	62,103	343,683	32,260	438,046	
	Increase on 2008	2,344	-40,807	-7,541	-46,004	
	Percentage change from 2008	4%	-11%	-19%	-10%	
2008 Totals	59,759	384,490	39,801	484,050		

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

Species of animal	Type of toxicological test or procedure										Number of procedures		
	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	80,034	1,323	8,844	1,088	3,264	2,726	3,115	4,162	3,338	244			
Rat	35	1,775	2,709	4,711	7,833	12,544	8,690	6,404	5,239	3,025			
All other rodents	-	192	-	54	82	-	424	-	-	-			
Rabbit	-	-	-	58	34	345	70	-	-	2,097			
Cat	-	-	-	-	-	-	42	-	-	-			
Dog	-	-	28	20	519	1,494	1,299	-	-	-			
Ferret	-	-	-	-	-	-	-	-	-	-			
Other carnivore	-	-	-	-	-	-	-	-	-	-			
Horse and other equids	-	-	-	-	-	-	-	-	-	-			
Pigs, sheep & all other ungulates	-	-	-	17	49	227	193	-	-	-			
Primate													
New World monkey	-	-	-	-	16	47	-	-	-	-			
Old World monkey	-	-	-	8	336	848	696	-	-	-			
All other mammals	-	-	-	-	-	-	-	-	-	-			
Bird	132	240	130	-	18	604	-	-	-	-			
Reptile, amphibian	-	-	-	-	-	-	-	-	-	-			
Fish	-	6,529	30,156	-	71	3,162	-	-	-	-			
Total	80,201	10,059	41,867	5,956	12,222	21,997	14,529	10,566	8,577	5,366			
Increase on 2008	-6,940	682	-35,976	-468	-4,316	-1,405	-6,610	1,429	144	-3,120			
Percentage change from 2008	-8%	7%	-46%	-7%	-26%	-6%	-31%	16%	2%	-37%			
Percentage of total for 2009	18%	2%	10%	1%	3%	5%	3%	2%	2%	1%			
2008 Totals	87,141	9,377	77,843	6,424	16,538	23,402	21,139	9,137	8,433	8,486			

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

Species of animal	Type of toxicological test or procedure										Number of procedures	
	Other reproductive toxicity	In eyes	For skin irritation	For skin sensitisation	Toxicokinetics	Pyrogenicity	Biocompatibility	Enzyme induction for in vitro tests	Immunotoxicology	Other toxicology	Total	
Mammal												
Mouse	1,766	122	6	862	10,934	-	265	102	5,879	60,505	188,579	
Rat	33,959	-	-	-	11,618	-	137	171	340	18,287	117,477	
All other rodents	-	-	-	-	-	-	-	-	-	7,599	8,351	
Rabbit	337	304	455	-	55	6,190	118	-	-	1,927	11,990	
Cat	-	-	-	-	-	-	-	-	-	32	74	
Dog	-	-	-	-	565	-	-	-	-	1,126	5,051	
Ferret	-	-	-	-	-	-	-	-	-	39	39	
Other carnivore	-	-	-	-	-	-	-	-	-	418	418	
Horse and other equids	-	-	-	-	16	-	-	-	-	2	18	
Pigs, sheep & all other ungulates	54	-	-	-	164	-	3	-	-	2,933	3,640	
Primate												
New World monkey	-	-	-	-	10	-	-	-	-	16	89	
Old World monkey	-	-	-	-	361	-	-	-	-	811	3,060	
All other mammals	-	-	-	-	-	-	-	-	-	-	-	
Bird	160	-	-	-	140	-	-	-	-	12,270	13,694	
Reptile, amphibian	-	-	-	-	-	-	-	-	-	-	-	
Fish	5,362	-	-	-	1,047	-	-	-	2,000	37,239	85,566	
Total	41,638	426	461	862	24,910	6,190	523	273	8,219	143,204	438,046	
Increase on 2008	8,562	-53	-291	-212	-1,158	-562	373	131	3,363	423	-46,004	
Percentage change from 2008	26%	-11%	-39%	-20%	-4%	-8%	249%	92%	69%	0.3%	-10%	
Percentage of total for 2009	10%	0.1%	0.1%	0.2%	6%	1%	0.1%	0.1%	2%	33%	100%	
2008 Totals	33,076	479	752	1,074	26,068	6,752	150	142	4,856	142,781	484,050	

Table 12: Scientific procedures (toxicology) by species of animal and type of toxicological test: safety testing of substances other than pharmaceuticals

Species of animal	Type of toxicological test or procedure										Number of procedures		
	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			
Mouse	-	-	7,670	33	175	148	208	904	1,822	-	-	-	-
Rat	35	472	2,008	2,589	1,123	2,482	1,760	916	479	609	-	-	-
All other rodents	-	-	-	-	-	-	-	-	-	-	-	-	-
Rabbit	-	-	-	-	-	-	-	-	-	-	-	-	120
Dog	-	-	-	-	-	-	80	-	-	-	-	-	-
Horse and other equids	-	-	-	-	-	-	-	-	-	-	-	-	-
Pigs, sheep & all other ungulates	-	-	-	-	-	-	-	-	-	-	-	-	-
Bird	132	240	130	-	18	-	-	-	-	-	-	-	-
Reptile / Amphibian	-	-	-	-	-	-	-	-	-	-	-	-	-
Fish	-	6,504	2,175	-	10	1,302	-	-	-	-	-	-	-
Total	167	7,216	11,983	2,622	1,326	3,932	2,048	1,820	2,301	-	-	-	729

Table 12: Scientific procedures (toxicology) by species of animal and type of toxicological test: safety testing of substances other than pharmaceuticals (Continued)

Species of animal	Type of toxicological test or procedure										Number of procedures			
	Other reproductive toxicity	In eyes	For skin irritation	For skin sensitisation	Toxicokinetics	Pyrogenicity	Biocompatibility	Enzyme induction for in vitro tests	Immunotoxicology	Other toxicology	Total			
Mouse	1,487	-	-	467	128	-	-	-	4,649	924	18,615	-	-	-
Rat	10,451	-	-	-	440	-	-	126	240	996	24,726	-	-	-
All other rodents	-	-	-	-	-	-	-	-	-	60	60	-	-	-
Rabbit	28	298	426	-	-	-	-	-	-	-	872	-	-	-
Dog	-	-	-	-	-	-	-	-	-	8	88	-	-	-
Horse and other equids	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pigs, sheep & all other ungulates	-	-	-	-	78	-	-	-	-	358	436	-	-	-
Bird	160	-	-	-	140	-	-	-	-	265	1,085	-	-	-
Reptile / Amphibian	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fish	5,234	-	-	-	525	-	-	-	-	471	16,221	-	-	-
Total	17,360	298	426	467	1,311	-	-	126	4,889	3,082	62,103	-	-	-

Table 15: Scientific procedures (toxicology) by species of animal and type of toxicological test: safety testing of pharmaceuticals,

Species of animal	Type of toxicological test or procedure										Number of procedures		
	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	Total	Other toxicology	Total
Mouse	80,034	322	1,174	1,055	3,073	2,550	2,887	3,258	1,471	244			
Rat	-	20	701	2,122	6,710	9,932	6,870	5,488	3,771	2,416			
All other rodents	-	-	-	54	82	-	424	-	-	-			
Rabbit	-	-	-	58	34	345	70	-	-	1,977			
Cat	-	-	-	-	-	-	42	-	-	-			
Dog	-	-	28	20	519	1,494	1,219	-	-	-			
Ferret	-	-	-	-	-	-	-	-	-	-			
Other carnivore	-	-	-	-	-	-	-	-	-	-			
Horse and other equids	-	-	-	-	-	-	-	-	-	-			
Pigs, sheep & all other ungulates	-	-	-	17	49	227	193	-	-	-			
New World monkey	-	-	-	-	16	47	-	-	-	-			
Old World monkey	-	-	-	4	336	848	696	-	-	-			
All other mammals	-	-	-	-	-	-	-	-	-	-			
Bird	-	-	-	-	-	604	-	-	-	-			
Reptile / Amphibian	-	-	-	-	-	-	-	-	-	-			
Fish	-	-	27,981	-	61	1,860	-	-	-	-			
Total	80,034	342	29,884	3,330	10,880	17,907	12,401	8,746	5,242	4,637			

Table 15: Scientific procedures (toxicology) by species of animal and type of toxicological test: safety testing of pharmaceuticals (continued)

Species of animal	Type of toxicological test or procedure										Number of procedures		
	Other reproductive toxicity	In eyes	For skin irritation	For skin sensitisation	Toxicokinetics	Pyrogenicity	Biocompatibility	Enzyme induction for in vitro tests	Immunotoxicology	Other toxicology	Total	Total	Total
Mouse	279	122	6	305	10,786	-	46	102	551	55,844	164,109		
Rat	23,204	-	-	-	11,136	-	100	3	-	13,357	85,830		
All other rodents	-	-	-	-	-	-	-	-	-	7,387	7,947		
Rabbit	309	6	29	-	55	5,592	45	-	-	1,629	10,149		
Cat	-	-	-	-	-	-	-	-	-	32	74		
Dog	-	-	-	-	565	-	-	-	-	965	4,810		
Ferret	-	-	-	-	-	-	-	-	-	39	39		
Other carnivore	-	-	-	-	-	-	-	-	-	418	418		
Horse and other equids	-	-	-	-	16	-	-	-	-	2	18		
Pigs, sheep & all other ungulates	-	-	-	-	86	-	-	-	-	2,400	2,972		
New World Monkey	-	-	-	-	10	-	-	-	-	16	89		
Old World Monkey	-	-	-	-	361	-	-	-	-	309	2,554		
All other mammals	-	-	-	-	-	-	-	-	-	-	-		
Bird	-	-	-	-	-	-	-	-	-	12,005	12,609		
Reptile / Amphibian	-	-	-	-	-	-	-	-	-	-	-		
Fish	-	-	-	-	450	-	-	-	2,000	19,713	52,065		
Total	23,792	128	35	305	23,465	5,592	191	105	2,551	114,116	343,683		

Table 16 Scientific procedures (toxicology) by species of animal and type of toxicological test: other safety or toxicology testing

Species of animal	Type of toxicological test or procedure										Number of procedures	
	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		
Mouse	-	1,001	-	-	16	28	20	-	45	-	-	-
Rat	-	1,283	-	-	-	130	60	-	989	-	-	-
All other rodents	-	192	-	-	-	-	-	-	-	-	-	-
Rabbit	-	-	-	-	-	-	-	-	-	-	-	-
Cat	-	-	-	-	-	-	-	-	-	-	-	-
Dog	-	-	-	-	-	-	-	-	-	-	-	-
Other carnivore	-	-	-	-	-	-	-	-	-	-	-	-
Horse and other equids	-	-	-	-	-	-	-	-	-	-	-	-
Pigs, sheep & all other ungulates	-	-	-	-	-	-	-	-	-	-	-	-
New World monkey	-	-	-	-	-	-	-	-	-	-	-	-
Old World monkey	-	-	-	4	-	-	-	-	-	-	-	-
Bird	-	-	-	-	-	-	-	-	-	-	-	-
Reptile / Amphibian	-	-	-	-	-	-	-	-	-	-	-	-
Fish	-	25	-	-	-	-	-	-	-	-	-	-
Total	-	2,501	-	4	16	158	80	-	1,034	-	-	-

Table 16 Scientific procedures (toxicology) by species of animal and type of toxicological test: other safety or toxicology testing (Continued)

Species of animal	Type of toxicological test or procedure										Number of procedures	
	Other reproductive toxicity	For skin sensitisation	Toxicokinetics	Pyrogenicity	Biocompatibility	Enzyme induction for in vitro tests	Immunotoxicology	Other toxicology	Total			
Mouse	-	90	20	-	219	-	679	3,737	5,855	-	-	-
Rat	304	-	42	-	37	42	100	3,934	6,921	-	-	-
All other rodents	-	-	-	-	-	-	-	152	344	-	-	-
Rabbit	-	-	-	598	73	-	-	298	969	-	-	-
Cat	-	-	-	-	-	-	-	-	-	-	-	-
Dog	-	-	-	-	-	-	-	153	153	-	-	-
Other carnivore	-	-	-	-	-	-	-	-	-	-	-	-
Horse and other equids	-	-	-	-	-	-	-	-	-	-	-	-
Pigs, sheep & all other ungulates	54	-	-	-	3	-	-	175	232	-	-	-
New World Monkey	-	-	-	-	-	-	-	-	-	-	-	-
Old World Monkey	-	-	-	-	-	-	-	502	506	-	-	-
Bird	-	-	-	-	-	-	-	-	-	-	-	-
Reptile / Amphibian	-	-	-	-	-	-	-	-	-	-	-	-
Fish	128	-	72	-	-	-	-	17,055	17,280	-	-	-
Total	486	90	134	598	332	42	779	26,006	32,260	-	-	-

Table 19 Project licences and scientific procedures by type of designated establishment

Great Britain 2009

Type of designated establishment	Number of licence holders ⁽¹⁾ reporting countable ⁽²⁾ procedures, by number of procedures reported											Licencees reporting non-countable ⁽²⁾ procedures only	Number of licence holders ⁽¹⁾ reporting no procedures	Total licencees	Procedures		
	Number of procedures reported														Total	Total	Percentage
	1 to 50	51 to 100	101 to 200	201 to 400	401 to 600	601 to 800	801 to 1,000	More than 1,000									
Public health laboratories	9	2	1	3	1	0	0	3				19	1	4	11,686	0%	
Universities, medical schools	352	212	260	270	135	103	77	399				1,808	4	495	1,615,842	45%	
NHS hospitals	3	1	3	4	3	4	0	4				22	0	3	21,870	1%	
Government departments	31	10	7	13	1	5	1	13				81	0	34	92,666	3%	
Other public bodies	36	20	15	19	15	11	6	75				197	3	57	529,818	15%	
Non-profit-making organisations	16	9	8	6	13	5	7	39				103	1	27	315,490	9%	
Commercial organisations	32	13	23	31	18	17	11	111				256	2	60	1,032,168	29%	
Total	479	267	317	346	186	145	102	644				2,486	11	680	3,177	100%	

(1) Some licence-holders hold more than one licence; these figures are compiled by numbers of project licences, not by numbers of actual licence-holders.

(2) Only procedures on adult or free-living animals (including neonatal and juvenile mammals, and newly-hatched birds) are counted.

Details of procedures on immature forms (e.g. larvae, embryos, fish fry) are collected but not counted.

Animals in the wild involved in rodenticide trials are also not counted. Details (if applicable) are given in the Commentary.

Erratum

Page 16, Table 3.3 species 'Reptile' and 'Amphibian' had been transposed.