STATISTICS OF ANIMAL USE IN RESEARCH AND TEACHING

VICTORIA

REPORT NUMBER 28

1 January, 2010 to 31 December, 2010

compiled by:

BUREAU OF ANIMAL WELFARE
BIOSECURITY VICTORIA
DEPARTMENT OF PRIMARY INDUSTRIES

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Victoria
The Place To Be

There is a regulatory requirement for returns on the use of animals in licensed scientific institutions to be made to the Secretary of the Department of Primary Industries on a yearly basis. Details for the Return are based on Regulation 100 of the Prevention of Cruelty to Animals Regulations.

The Statistics of Animal Use in Research and Teaching Victoria Number 27 represents a compilation of the returns for 1 January to 31 December 2010. Animals used in Victoria only are reported.

Tables 1 to 12 of this report present data for animals used in scientific procedures.

The production of 'specified animals'* for scientific procedures must be licensed under Part 3 of the Act. These data are presented in table 13 of this report. Only specified animals that were produced or involved in production but were not used for scientific procedures are reported in table 13.

For further information on the data collected for this report, refer to the attached 2010 Return document.

*Specified animals means – guinea pig; and rat, mouse, or rabbit, other than a rat, mouse, or rabbit bred in it's native habitat; and non-human primate.

The Bureau of Animal Welfare oversees the administration of Part 3 of the "Prevention of Cruelty to Animal Act 1986" and Part 4 of the "Prevention of Cruelty to Animals Regulations 2008", which refer to scientific procedures.

TABLE 1: NUMBERS OF ANIMALS USED BY TYPE OF ANIMAL AND PROJECT PURPOSE

Animal type	Educational	Environmental	Animal management/production	Improve human/animal health/welfare	Understand human/animal biology	Total
Amphibians	1,201	3,153	291	631	1,796	**7,072**
Bird exotic wild	60	40	240	25		**365**
Bird native captive	287	66		30	54	**437**
Bird native wild	332	18,306	90	4,776	1,777	**25,281**
Bird other	12			60	18	**90**
Cats (non-wild)	350			66	23	**439**
Cats (wild)	2	105				**107**
Cattle (domestic)	2,573	300	12,834	9,755	125	**25,587**
Cephalopods	1	2,898			276	**3,175**
Crustaceans	265	26,536	2		31	**26,834**
Dasyurids	325	2,242	31		58	**2,656**
Dogs (non-wild)	1,881			916	34	**2,831**
Dogs, foxes (wild)	3	10				**13**
Domestic mammal other	511		171			**682**
Exotic feral mammal other		324	33			**357**
Exotic Zoo mammal			4	5	4	**13**
Ferret (lab)	6			1,139		**1,145**
Fish	8,517	494,834	231,413	43	43,952	**778,759**
Goats (domestic)	8			1,795	11	**1,814**
Guinea pig (lab)	237			3,096	572	**3,905**
Horses (domestic)	491		18	354	343	**1,206**
Koalas	204	21	36	350	9	**620**
Laboratory mammal other	12			962	814	**1,788**
Lizards	164	2,812		24	1,732	**4,732**
Macaques	2			36	61	**99**
Macropods	14	418	451	74	1,116	**2,073**
Marmosets				85	98	**183**
Mice (wild)	34	2,092		31	614	**2,771**
Monotremes	3	141	11	8		**163**
Mouse (lab)	6,594	5	4,288	124,806	368,241	**503,934**
Native mammal other	138	438	52	23	464	**1,115**
Native rats, Mice	303	3,519	6		188	**4,016**
Pigs (domestic)	84		80	740	57	**961**
Possums, Gliders	79	1,849	31	7	162	**2,128**
Poultry	254		5,066	11,842	4,568	**21,730**
Rabbit (lab)	229			811	518	**1,558**
Rabbits (wild)	4	3				**7**
Rat (lab)	1,352		10	8,846	20,486	**30,694**
Rats (wild)	2	119		33		**154**
Reptile other	6		8			**14**
Seals, Sealions		264				**264**
Sheep (domestic)	70,568	5	9,112	46,146	7,037	**132,868**
Snakes	4	38		16		**58**
Tortoises/ turtle	5	203	80		51	**339**
Whales, Dolphins		300				**300**
Wombats				10	28	**38**
Total	**97,117**	**561,041**	**264,358**	**217,541**	**455,318**	**1,595,375**

TABLE 2: NUMBERS OF ANIMALS USED BY TYPE OF ANIMAL AND SOURCE

Animal type	Specified animal supplier	Other specified animal source	Animals in their natural habitat	Colony/zoo	Commercial supplier	Own Derivation	Private donation	Privately owned animals on farm	Removed from natural habitat	Other Source	Total
Amphibians			3,760	101	1,621	3			1,537	50	**7,072**
Bird exotic wild			340						25		**365**
Bird native captive				118	103	198		4	14		**437**
Bird native wild			24,535						746		**25,281**
Bird other					78					12	**90**
Cats (non-wild)					3	55	40			341	**439**
Cats (wild)			62						45		**107**
Cattle (domestic)					1,335	1,236	6	22,954		56	**25,587**
Cephalopods			2,898						277		**3,175**
Crustaceans			24,157		2,440				237		**26,834**
Dasyurids			2,651	2					3		**2,656**
Dogs (non-wild)					296	28	265	76		2,166	**2,831**
Dogs, foxes (wild)			9						4		**13**
Domestic mammal other							17	571		94	**682**
Exotic feral mammal other			357								**357**
Exotic Zoo mammal				13							**13**
Ferret (lab)					1,139					6	**1,145**
Fish			493,437	56	20,340	239,793	1,667		23,288	178	**778,759**
Goats (domestic)							2	1,795		17	**1,814**
Guinea pig (lab)	3,903	2									**3,905**
Horses (domestic)					324	58	22	507		295	**1,206**
Koalas			620								**620**
Laboratory mammal other					39	1,749					**1,788**
Lizards			4,078	358	1	8			287		**4,732**
Macaques	99										**99**
Macropods			1,634	434		5					**2,073**
Marmosets	183										**183**
Mice (wild)			2,127			579			65		**2,771**
Monotremes			155	8							**163**
Mouse (lab)	498,038	5,896									**503,934**
Native mammal other			990	51					74		**1,115**
Native Rats, Mice			3,828		188						**4,016**
Pigs (domestic)					798	59	3	50		51	**961**
Possums, Gliders			1,968	142					18		**2,128**
Poultry					20,368	312	68	335		647	**21,730**
Rabbit (lab)	1,554	4									**1,558**
Rabbits (wild)			7								**7**
Rat (lab)	30,491	203									**30,694**
Rats (wild)			121						33		**154**
Reptile other			8							6	**14**
Seals, Sealions			264								**264**
Sheep (domestic)					1,908	7,614	9	123,041		296	**132,868**
Snakes			40	15						3	**58**
Tortoises/ turtle			303			2			34		**339**
Whales, Dolphins			300								**300**
Wombats			27	1						10	**38**
Total	**534,268**	**6,105**	**568,676**	**1,299**	**50,981**	**251,699**	**2,099**	**149,333**	**26,687**	**4,228**	**1,595,375**

TABLE 3: NUMBERS OF ANIMALS USED BY TYPE OF ANIMAL AND PARTICULAR PROCEDURE

Potentially impacting, invasive, or controversial procedures are listed. If none of these procedures have been used, 'Other procedure' is indicated

Animal type	Aversive stimuli	Burn or scald	CNS	GM	Immuno-mod	Infect-ion	Ionising radia	Long attach /insert	Mono-clonal a/b prod	Neo-plasia	Neuro-musc block, electro-immob	Other disease	Poly-clonal a/b prod	Skin irrit	Toxicity	Other proced	Total
Amphibians								154								6,918	**7,072**
Bird exotic wild								25								340	**365**
Bird native captive								25							20	392	**437**
Bird native wild	2,500							2,094							12	20,675	**25,281**
Bird other																90	**90**
Cats (non-wild)		1			28			53			3					354	**439**
Cats (wild)															95	12	**107**
Cattle (domestic)					847	104							1,496			23,140	**25,587**
Cephalopods																3,175	**3,175**
Crustaceans								6,641								20,193	**26,834**
Dasyurids								58								2,598	**2,656**
Dogs (non-wild)	30				138	10		3								2,650	**2,831**
Dogs, foxes (wild)															4	9	**13**
Domestic mammal other																682	**682**
Exotic feral mammal other								2								355	**357**
Exotic Zoo mammal																13	**13**
Ferret (lab)						1,131							8			6	**1,145**
Fish	285			1,967		105	120	38,384			1,400	198			535	735,765	**778,759**
Goats (domestic)													11			1,803	**1,814**
Guinea pig (lab)				50		4		68				162	43		225	3,353	**3,905**
Horses (domestic)						3						8	66			1,129	**1,206**
Koalas								36								584	**620**
Laboratory mammal other	10		150			30						51				1,547	**1,788**
Lizards								2,934			24					1,774	**4,732**
Macaques					50			5			1					43	**99**
Macropods								478								1,595	**2,073**
Marmosets			56									13				114	**183**
Mice (wild)																2,771	**2,771**
Monotremes								135								28	**163**
Mouse (lab)	1,907		1,891	90,522	33,189	44,173	12,548	2,371	963	51,837		58,465	537		1,735	203,796	**503,934**
Native mammal other								462								653	**1,115**
Native Rats, Mice						188		12								3,816	**4,016**
Pigs (domestic)			10		94	20						5				832	**961**
Possums, Gliders								57								2,071	**2,128**
Poultry	4,161			6,903	1,719	5,627							102			3,218	**21,730**
Rabbit (lab)						63	42	73	24			234	348	9	9	756	**1,558**
Rabbits (wild)																7	**7**
Rat (lab)	743		1,371	2	17	41	16	2,393	45	65	11	6,424	19		349	19,198	**30,694**
Rats (wild)																154	**154**
Reptile other																14	**14**
Seals, Sealions								6								258	**264**
Sheep (domestic)			45		122	89		513	10			319	49			131,721	**132,868**
Snakes								1			15					42	**58**
Tortoises/ turtle								100								239	**339**
Whales, Dolphins																300	**300**
Wombats																38	**38**
Total	**9,636**	**1**	**3,523**	**99,444**	**36,204**	**51,588**	**12,726**	**57,083**	**1,042**	**51,902**	**1,454**	**65,879**	**2,679**	**9**	**2,984**	**1,199,221**	**1,595,375**

TABLE 4: NUMBERS OF ANIMALS USED BY TYPE OF ANIMAL AND IMPACT OF PROCEDURE

Animal type	Animal unconscious without recovery	Observational study minor interference	Minor intervention, no anaesthesia	Minor operative procedures recovery	Minor physiological challenge	Surgery with recovery	Major physiological challenge	Death as an end point	Total
Amphibians	1,360	403	3,661	70	392	326	615	245	**7,072**
Bird exotic wild		340		25					**365**
Bird native captive		110	258	2	67				**437**
Bird native wild		17,491	5,289	1	2,500				**25,281**
Bird other		2				10			**90**
Cats (non-wild)	40	57	107	2		233			**439**
Cats (wild)		9	3					95	**107**
Cattle (domestic)		13,621	11,432		393	50	91		**25,587**
Cephalopods		153	138	124			2,760		**3,175**
Crustaceans	152	152	17,562	6,641	12		1,992	323	**26,834**
Dasyurids		1,875	780	1					**2,656**
Dogs (non-wild)	221	1,122	827	2	27	632			**2,831**
Dogs, foxes (wild)		6	3					4	**13**
Domestic mammal other		465	177			40			**682**
Exotic feral mammal other		319	38						**357**
Exotic Zoo mammal		9	2	2					**13**
Ferret (lab)			4		1,043	2	96		**1,145**
Fish	6,425	282,275	299,453	6,922	14,141	175	168,985	383	**778,759**
Goats (domestic)		1,741	73						**1,814**
Guinea pig (lab)	405	136	2,773	308	4	279			**3,905**
Horses (domestic)	2	522	533	11	69		69		**1,206**
Koalas			611	9					**620**
Laboratory mammal other	51	1,042	535	10		150			**1,788**
Lizards	22	2,770	1,599	31	310				**4,732**
Macaques	11	3	2	77		6			**99**
Macropods	326	959	254	456		78			**2,073**
Marmosets	16	106	13			48			**183**
Mice (wild)	31	183	1,325				2	1,230	**2,771**
Monotremes		24	139						**163**
Mouse (lab)	95,868	66,853	150,616	45,302	69,046	22,561	53,653	35	**503,934**
Native mammal other	11	174	460	470					**1,115**
Native Rats, Mice		2,199	1,817						**4,016**
Pigs (domestic)	102	96	684		68	1	10		**961**
Possums, Gliders	1	1,418	454	255					**2,128**
Poultry	5,444	8,644	5,241	136	1,221		1,044		**21,730**
Rabbit (lab)	412	43	317	422	128	98	138		**1,558**
Rabbits (wild)		2	5						**7**
Rat (lab)	12,136	2,731	2,297	1,745	2,728	8,000	1,057		**30,694**
Rats (wild)	33	101	20						**154**
Reptile other		8				6			**14**
Seals, Sealions		238	5	21					**264**
Sheep (domestic)	1,096	125,309	5,319	66	372	633	73		**132,868**
Snakes		31	11	16					**58**
Tortoises/ turtle		207	101	31					**339**
Whales, Dolphins		120			180				**300**
Wombats		1			10	27			**38**
Total	**124,243**	**534,070**	**514,938**	**63,158**	**92,711**	**33,355**	**230,585**	**2,315**	**1,595,375**

TABLE 5: NUMBERS OF ANIMALS USED BY TYPE OF ANIMAL AND PROJECT BENEFIT

Animal type	Biological products	Biology /physiology	Demon-stration	Diseases animal	Diseases human	Diseases zoonotic	Dom. animal manage	Environ-mental	Pest manage	Regulatory testing	Technique develop.	Training	Wildlife manage	Xenotrans-plantation	Total
Amphibians		1,637	427		1	1,470		1,183			24	59	2,271		**7,072**
Bird exotic wild			60					40					265		**365**
Bird native captive		29	2								4	281	121		**437**
Bird native wild		1,500	95					5,584			20	9	18,073		**25,281**
Bird other		18	2				60					10			**90**
Cats (non-wild)		23	6		38					28		344			**439**
Cats (wild)									95				12		**107**
Cattle (domestic)	800	82	554	3,956	1,506		16,270			177		2,242			**25,587**
Cephalopods		276	1					2,898							**3,175**
Crustaceans		18	125					23,933	2,300			140	318		**26,834**
Dasyurids			6					182			15	294	2,159		**2,656**
Dogs (non-wild)		24	36	307	33	10	455			127	32	1,807			**2,831**
Dogs, foxes (wild)									4				9		**13**
Domestic mammal other			454				171					57			**682**
Exotic feral mammal other								38					319		**357**
Exotic Zoo mammal		2		2									9		**13**
Ferret (lab)	8			10	912	209						6			**1,145**
Fish		47,809	1,574		1,530		209,485	434,979	4,926			524	77,932		**778,759**
Goats (domestic)		11	6				1,795					2			**1,814**
Guinea pig (lab)	2	441	29	1,158	2,064					4		207			**3,905**
Horses (domestic)		20	11	362	66		248			3		496			**1,206**
Koalas								9				1	610		**620**
Laboratory mammal other		814			962							12			**1,788**
Lizards		946	8	1				86			14	105	3,572		**4,732**
Macaques	24	11			62							2			**99**
Macropods		726		71				3					1,273		**2,073**
Marmosets	6	164			13										**183**
Mice (wild)			4			31		37	1,427			18	1,254		**2,771**
Monotremes												1	162		**163**
Mouse (lab)	970	169,506	143	13,869	306,527	517	1,029			3,292	1,894	4,922		1,265	**503,934**
Native mammal other	10	1	32			13		703			5	32	319		**1,115**
Native Rats, Mice			6		188			475				274	3,073		**4,016**
Pigs (domestic)		77	49	468	20	8	119			94	33	73		20	**961**
Possums, Gliders		30	4	1		7		282	101		16		1,687		**2,128**
Poultry	4,295	5,334	7	2,595	834	7,029	165			1,217	13	241			**21,730**
Rabbit (lab)	253	275	1	511	214	6				22	58	218			**1,558**
Rabbits (wild)								1					6		**7**
Rat (lab)	93	13,494	141	792	14,180					642	236	1,099		17	**30,694**
Rats (wild)						33							121		**154**
Reptile other												6	8		**14**
Seals, Sealions								238					26		**264**
Sheep (domestic)	667	635	29,253	7,445	646	68	51,964	37		860	43	41,250			**132,868**
Snakes								6				4	48		**58**
Tortoises/ turtle		31	3					283				2	20		**339**
Whales, Dolphins								180					120		**300**
Wombats				10									28		**38**
Total	**7,128**	**243,934**	**33,039**	**31,558**	**329,796**	**9,401**	**281,761**	**471,177**	**8,853**	**6,466**	**2,407**	**54,738**	**113,815**	**1,302**	**1,595,375**

TABLE 6: NUMBERS OF ANIMALS USED BY TYPE OF ANIMAL AND DEATHS

Animal type	Death as an endpoint	Other death	Total death	Total in project
Amphibians	245	1,996	2,241	**7,072**
Bird exotic wild		25	25	**365**
Bird native captive		20	20	**437**
Bird native wild		73	73	**25,281**
Bird other		78	78	**90**
Cats (non-wild)		47	47	**439**
Cats (wild)	95		95	**107**
Cattle (domestic)		2,198	2,198	**25,587**
Cephalopods		2,900	2,900	**3,175**
Crustaceans	323	892	1,215	**26,834**
Dasyurids		5	5	**2,656**
Dogs (non-wild)		234	234	**2,831**
Dogs, foxes (wild)	4		4	**13**
Domestic mammals other		3	3	**682**
Exotic feral mammal other				**357**
Exotic Zoo mammal				**13**
Ferret (lab)		427	427	**1,145**
Fish	383	384,966	385,290	**778,759**
Goats (domestic)		30	30	**1,814**
Guinea pig (lab)		1,596	1,596	**3,905**
Horses (domestic)		25	25	**1,206**
Koalas				**620**
Laboratory mammal other		1,022	1,022	**1,788**
Lizards		200	200	**4,732**
Macaques		21	21	**99**
Macropods		418	418	**2,073**
Marmosets		43	43	**183**
Mice (wild)	1,230	656	1,886	**2,771**
Monotremes				**163**
Mouse (lab)	35	383,696	383,731	**503,934**
Native mammal other		20	20	**1,115**
Native Rats, Mice		199	199	**4,016**
Pigs (domestic)		381	381	**961**
Possums, Gliders		76	76	**2,128**
Poultry		19,847	19,847	**21,730**
Rabbit (lab)		832	832	**1,558**
Rabbits (wild)				**7**
Rat (lab)		26,862	26,862	**30,694**
Rats (wild)		33	33	**154**
Reptile other		1	1	**14**
Seals, Sealions				**264**
Sheep (domestic)		4,447	4,447	**132,868**
Snakes				**58**
Tortoises/ turtle		9	9	**339**
Whales, Dolphins				**300**
Wombats				**38**
Total	**2,315**	**834,278**	**836,534**	**1,595,375**

TABLE 7: NUMBERS OF ANIMALS USED BY PROJECT PURPOSE AND PROJECT BENEFIT

Overall purpose	Biological products	Biology/ physiology	Demon-stration	Diseases animal	Diseases human	Diseases zoonotic	Domestic animal management	Environ-mental	Pest manage	Regulatory product testing	Technique development	Training	Wildlife manage	Xenotrans-plantation	Total
Educational objectives		1,037	32,877	18	53		100	6,395			1,615	54,455	567		**97,117**
Environmental objectives		66		2		1,470	300	453,346	8,622		5	5	97,225		**561,041**
Improve animal management/production	4,193	9,513	20	461			231,367	10,434		1,304		119	6,947		**264,358**
Maintenance/improvement human/animal health/welfare	1,860	10,209	54	23,253	113,167	7,699	49,943			4,192	695	36	5,927	506	**217,541**
Understand human/animal biology	1,075	223,109	88	7,824	216,576	232	51	1,002	231	970	92	123	3,149	796	**455,318**
Total	**7,128**	**243,934**	**33,039**	**31,558**	**329,796**	**9,401**	**281,761**	**471,177**	**8,853**	**6,466**	**2,407**	**54,738**	**113,815**	**1,302**	**1,595,375**

TABLE 8: NUMBERS OF ANIMALS USED BY PROJECT PURPOSE AND PROJECT IMPACT

Overall purpose	Animal unconscious without recovery	Observational study minor interference	Minor intervention, no anaesthesia	Minor operative procedures recovery	Minor physiological challenge	Surgery with recovery	Major physiological challenge	Death as an end point	Total
Educational objectives	5,252	75,055	11,841	2,014	1,359	1,353	243		**97,117**
Environmental objectives	3,177	102,706	310,046	10,823	3,753	120	128,399	2,017	**561,041**
Improve animal management/production	7,555	217,927	13,940	3,123	10,447	1,126	10,222	18	**264,358**
Maintenance/improvement human/animal health/welfare	23,415	74,441	57,295	20,323	19,596	9,559	12,912		**217,541**
Understand human/animal biology	84,844	63,941	121,816	26,875	57,556	21,197	78,809	280	**455,318**
Total	**124,243**	**534,070**	**514,938**	**63,158**	**92,711**	**33,355**	**230,585**	**2,315**	**1,595,375**

TABLE 9: NUMBERS OF ANIMALS USED BY PROJECT PURPOSE AND PARTICULAR PROCEDURE

Potentially impacting, invasive, or controversial procedures are listed. If none of these procedures have been used, 'Other procedure' is indicated.

Overall purpose	Aversive stimuli	Burn or scald	CNS	GM	Immuno-mod methods	Infect-ion induct	Ionising radiat	Long term attach /insert	Mono-clonal a/b prod	Neo-plasia	Neuro-Musc block, electro-immob	Other disease	Poly-clonal a/b prod	Skin irrit	Toxicity	Other Procedure	Total
Educational objectives								73				100				96,944	**97,117**
Environmental objectives	180					105		49,665							666	510,425	**561,041**
Improve animal management/production					560	4,749		192								258,857	**264,358**
Maintenance/improvement human/animal health/welfare	2,724		245	29,029	11,429	14,279	1,427	1,324	68	16,740	50	20,760	2,036	9	1,887	115,534	**217,541**
Understand human/animal biology	6,732	1	3,278	70,415	24,215	32,455	11,299	5,829	974	35,162	1,404	45,019	643		431	217,461	**455,318**
Total	**9,636**	**1**	**3,523**	**99,444**	**36,204**	**51,588**	**12,726**	**57,083**	**1,042**	**51,902**	**1,454**	**65,879**	**2,679**	**9**	**2,984**	**1,199,221**	**1,595,375**

TABLE 10: NUMBERS OF ANIMALS USED BY PROJECT PURPOSE AND SOURCE

Overall purpose	Specified animal supplier	Other specified animal source	Animals in their natural habitat	Colony/zoo	Commercial supplier	Own Derivation	Private animals on farm	Private donation	Removed from natural habitat	Other Source	Total
Educational objectives	8,406	8	8,132		3,407	3,702	70,768	261	255	2,178	**97,117**
Environmental objectives	5	0	538,196	324	3,395	1,346	300	5	17,355	115	**561,041**
Improve animal management/production	4,298	0	11,279	107	21,736	205,939	15,177		5,822		**264,358**
Maintenance/improvement human/animal health/welfare	134,914	2,766	5,208	82	14,040	1,624	56,487	166	735	1,519	**217,541**
Understand human/animal biology	386,645	3,331	5,861	786	8,403	39,088	6,601	1,667	2,520	416	**455,318**
Total	**534,268**	**6,105**	568,676	1,299	50,981	251,699	149,333	2,099	26,687	4,228	**1,595,375**

TABLE 11: NUMBERS OF ANIMALS USED BY IMPACT OF PROCEDURES AND PROJECT BENEFIT

Impact on animal	Biological products	Biology/ physiology	Demon-stration	Diseases animal	Diseases human	Diseases zoonotic	Domestic animal management	Environ-mental	Pest management	Regulatory product testing	Technique development	Training	Wildlife management	Xenotrans-plantation	Total
Animal unconscious without recovery	4,659	55,391	386	718	52,307	64	1,254	4,385		790	397	3,349	99	444	**124,243**
Observational study involving minor interference	7	27,093	30,594	7,585	50,233	6,908	260,073	16,173	338	596	132	44,399	89,939		**534,070**
Minor conscious intervention, no anaesthesia	890	59,139	663	20,449	92,829	1,554	7,704	305,826	195	3,450	192	4,974	16,590	483	**514,938**
Minor operative procedures with recovery	54	8,305		1,441	36,061	15	2,833	8,782	145	787	1,403	516	2,726	90	**63,158**
Minor physiological challenge	613	34,411	1,153	584	38,044	495	9,362	1,629	2,210	663	16	206	3,295	30	**92,711**
Surgery with recovery	42	11,750			19,037		499	175		1	107	1,294	247	203	**33,355**
Major physiological challenge	863	47,810	243	781	41,285	365	36	134,207	3,948	179	160		656	52	**230,585**
Death as an end point		35							2,017				263		**2,315**
Total	**7,128**	**243,934**	**33,039**	**31,558**	**329,796**	**9,401**	**281,761**	**471,177**	**8,853**	**6,466**	**2,407**	**54,738**	**113,815**	**1,302**	**1,595,375**

TABLE 12: NUMBERS OF ANIMALS USED BY IMPACT OF PROCEDURES AND PARTICULAR PROCEDURES

Potentially impacting, invasive, or controversial procedures are listed. If none of these procedures have been used, 'Other procedure' is indicated.

Impact on animal	Aversive stimuli	Burn or scald	CNS	Long term attach /insert	GM	Immuno modulatory methods	Infection induction	Ionising radiation	Mono-clonal a/b prod	Neoplasia	Neuro muscular block ,electro-immob	Other disease	Poly clonal a/b prod	Skin irrit	Toxicity	Other Procedure	Total
Animal unconscious without recovery	339	1	563	366	12,067	3,349	4,155	472	4	2,030	15	4,164	25		647	96,046	**124,243**
Observational study involving minor interference	1,337		231	2,855	26,997	2,696	629			5,923		12,216			50	481,136	**534,070**
Minor conscious intervention, no anaesthesia	4,146		475	40,654	37,205	19,631	1,455	500	134	7,195	1,400	3,131	1,744	9	1,114	396,145	**514,938**
Minor operative procedures with recovery	467		210	8,014	19,941	1,813	4,802		20	4,586	39	6,009	134		9	17,114	**63,158**
Minor physiological challenge	2,940		28	1,146	470	6,375	28,777	329	67	10,322		22,317	596		746	18,598	**92,711**
Surgery with recovery	387		1,724	4,048	2,222	154	341			678		10,850				12,951	**33,355**
Major physiological challenge	20		292		542	2,186	11,429	11,425	817	21,168		7,157	180		319	175,050	**230,585**
Death as an end point												35			99	2,181	**2,315**
Total	**9,636**	**1**	**3,523**	**57,083**	**99,444**	**36,204**	**51,588**	**12,726**	**1,042**	**51,902**	**1,454**	**65,879**	**2,679**	**9**	**2,984**	1,199,221	**1,595,375**

TABLE 13: SPECIFIED ANIMALS USED IN BREEDING COLONIES

Animal type	Breeding of non-GM animals	Breeding of GM animals	Euthanasia, humane killing, or unexpected death	Total
Guinea pig	1,153		638	**1,153**
Macaques	243		5	**243**
Marmosets	177		12	**177**
Mouse	360,185	531,098	65,7687	**891,283**
Rabbit	445		73	**445**
Rat	52,786	1,146	11,392	**53,932**
Total	**414,989**	**532,244**	**669,807**	**947,233**

VICTORIAN BUREAU OF ANIMAL WELFARE

ANIMAL USE RETURN GUIDELINES INCLUDING B & C FORMS, 2010

An Animal Use Return must be submitted for all Scientific Procedures Premises, Scientific Procedures Fieldwork, and Specified Animals Breeding Licenses held for any period during 2010, regardless of whether animals were used or not. The Return is to be composed of up to 3 parts that together provide the required information on animal use under a licence (Parts A, B, and C).

1. Part A details animals assigned to or used in projects, and Specified Animal Breeding Colonies. It is composed of an Excel spreadsheet incorporating drop down boxes. Part A is to be completed only if animals were used or specified animals were kept in a breeding colony in 2010.

2. Part B is a form that incorporates a declaration by the institution that the details of the Return are correct, summarises animal use by the licence, and details compliance with the principles of the "3 Rs". One form is to be completed for each licence. Part B must be completed whether or not animals were used in 2010.

3. Part C is a form that must be completed to report any Death as an Endpoint Procedures (DAEP) conducted under the licence in 2010. Death as an end point refers to procedures where death is the deliberate measure for evaluating biological or chemical processes, responses or effects - that is, where the researcher or teacher will not intervene to kill the animal humanely (Refer to the Australian Code of Practice for the Use and Care of Animals For Scientific Purposes). Any DAEP projects must also be detailed in Part A.

The deadline for submission of all required parts of the Return is 31 March 2011.

Due to continued difficulty with compliance in this matter, penalty infringement notices and fines will be issued to licence holders for failure to submit correct versions of all relevant parts prior to the deadline.

Note that this document has bookmarks (in blue) for electronic use. It is available with the Part A spreadsheet and list of Part A drop-down box options at:
http://www.dpi.vic.gov.au/animalwelfare/procedures on the "Licence forms" page. All parts may also be obtained from alan.fried@dpi.vic.gov.au

1. ANIMALS TO BE REPORTED IN PART A OF THE RETURN

1.1. Animals used in scientific procedures

1.1.i. Types of use.

All animals assigned to an AEC-approved project in 2010 must be reported, unless the animals were not used and were returned to the animal house. Animals used for breeding within an AEC-approved project are considered to be project animals and are to be reported as such. Projects that did not have any animals assigned to them during the 2010 are not to be reported in the spreadsheet submitted to the BAW. Note, however, that some licence holders may request that researchers submit internal reports on all projects as part of QA procedures, whether animals were used or not. These 'Nil Returns' should be removed by collators prior to the Part A being submitted to the BAW.

Scientific procedures projects include the breeding and/or use of any new-line genetically modified (GM) animals (ie. a GM line new to the institution – refer to the Australian Code of Practice for the Use and Care of Animals For Scientific Purposes for definition of GM animals), congenics, mutants

(whether naturally occurring or not) and cloned animals. These must all be assigned to a project and have AEC approval, and be reported in the Part A worksheet.

1.1.ii. Animal types

All vertebrates (including fish); cephalopods including octopus, squid, cuttlefish, and nautilus; and the decapod crustaceans lobster, crabs, and crayfish.

1.1.iii. Stage of development

Animals of the following stages of development are to be reported:

- Mammals - From half-gestation onwards (ex-utero);
- Birds - From half-incubation onwards;
- Reptiles - From half-incubation onwards;
- Amphibians - Capable of independent feeding;
- Fish - Capable of independent feeding;
- Cephalopod - Adult
- Crustacean - Adult

1.1.iv. Degree of participation in protocols

All animals assigned to a project for any period in 2010 must be reported, unless they are specified animals returned unused to the animal house and will be reported in a Specified Animal Breeding Colony. Excess animals that are held-over or euthanased while under the control of a project must still be reported for that project.

1.1.v. Animals reported in a previous year

An animal must be reported for each year in which it is assigned to a project, regardless of any reporting in previous years.

1.1.vi. Animals used in more than one project (repeat use)

An animal must be reported for each project in which it is used during 2010. This may result in an animal being reported more than once if it is assigned to more than one project.

1.1.vii. Alive or dead:

Only live animals used or live animals acquired by the licence and killed for use in a project are to be reported. The use of acquired carcasses or animal parts (ie scavenging) must not be reported in Part A.

1.1.viii. Location

Animals participating in projects conducted in Victoria or Victorian waters only are to be reported.

1.1.ix. Co-operative projects

To prevent duplication of project reporting, animal use must be reported only by the licence under which the principal investigator for that project is working.

1.2. Which breeding colony animals are to be reported?

1.2.i. Types of animals.

Specified Animal Breeding Colony animals only are to be reported. Specified animals are guinea pig; and rat, mouse or rabbit other than a rat, mouse or rabbit bred in the wild; and non-human primates.

1.2.ii. Definition of routine breeding or production

Specified animals held for stock maintenance and/or routine breeding under a SAB or SPP Licence and not assigned to a project, or that are returned unused from a project, must be reported as Specified Animal Breeding Colony breeding animals. This includes animals that have not

undergone genetic modification, and those animals with established GM lines that have been bred according to AEC-approved SOPs. Specified animals used to produce progeny and any breeders or progeny culled in the process must be included.

Animals used for breeding within an AEC-approved project are not considered to be part of a Specified Animal Breeding Colony and must be reported as Project animals.

1.2.iii. Stage of development of animal

From half-gestation onwards (ex-utero only) to be reported.

1.2.iv. Degree of participation in breeding

Specified animals not assigned to a project, or returned by a project unused, that were held in the SAB or SPP licence for any period in 2010 must be reported as part of the Specified Animal Breeding Colony. This is regardless of any reporting in previous years.

Final progeny assigned to a project in 2010 are not to be counted in Specified Animal Breeding Colony numbers, as these will be counted under the project to which they are assigned. Final progeny held for supply and unassigned to a project are to be reported as specified animal breeding colony animals.

In summary, the specified animals breeding group animals to be described are those in the colony at 1 January, plus any added to the colony between 1 January and 31 December (including reproduction and acquisitions), excluding live animals distributed to projects and not returned unused for re-issue.

2. DATA ENTRY FOR ANIMAL USE RETURN PART A

2.1. The Part A spreadsheet

An Excel worksheet is provided to complete Part A of the Return. Where pre-set options are to be used, drop-down boxes are provided with the available selections. Options provided in the drop-down boxes only will be accepted. Other entries will be returned for correction.

Dialogue boxes are also present that help with the information to be entered for each cell. These may be dragged using the mouse if they are obscuring cells. The title cell of each column may be used to access a help document on the second worksheet of the Excel document. To return to the data entry worksheet, click on the 'Data entry' tag on the left hand side of the bottom scroll bar.

As a line in the worksheet is completed for each project group or breeding group, the entries are tested for internal consistency. When an entry is made that is inconsistent with an entry in an earlier column, it is outlined in red and crossed-through. Pasting of entries may disable the testing macro and internally inconsistent or non-standard entries may occur. Spreadsheets with these incorrect entries will be returned for correction.

The spreadsheet is designed for use with Office 2003. There may be some formatting problems encountered if Office 2007 is used.

2.2. Grouping of animals for data entry

Project animals are to be reported in groups. Each project is to be broken down into groups by:

- Animal type;
- Animal source;
- Particular procedure; and
- Impact of different types of procedure on animal (eg test group, control group, group for any animals assigned to a project but not used in a procedure etc).

A line is to be used to describe each group.

Specified Animal Breeding Colony animals are to be reported as breeding groups by:

- Animal type;
- Source; and
- Whether the animals are non-GM or are involved in breeding established GM lines.

2.3. Category descriptions and examples

Following is a description of the entries for each column of the data entry worksheet. A flow-chart is provided in Appendix 1 to aid completion of the table. The total list of options in the drop-down boxes are in Appendix 2, and a sample completed form is in Appendix 3.

2.3.i. Column A. Year

Enter the reporting period year in four-figure format (2010).

2.3.ii. Column B. Licence number

The licence number with the four-letter prefix omitted. For example, for licence SPPL145 only 145 should be entered. The licence number is in the text box at the top of the licence.

2.3.iii. Column C. Animals assigned to an AEC-approved project, or animals in a Specified Animal Breeding Colony

Indicate if the animals were part of an AEC-approved project or part of a Specified Animal Breeding Colony. Note that animals bred within an AEC approved project are considered to be Project animals.

2.3.iv. Column D. AEC approval designation

The project designation assigned by the AEC. For Specified Animal Breeding Colony animals enter "SABC" (Specified Animal Breeding Colony).

2.3.v. Column E. AEC Approval Date

The date when final approval was received for the project in short, Australian format (e.g.12 November 2010 is to be entered as 12/11/2010. For Specified Animal Breeding Colony animals leave blank.

2.3.vi. Column F. Type of animal in group

Choose the animal type of each project group or Specified Animal Breeding Colony group. Note that "Specified Animals" are guinea pig; and rat, mouse or rabbit other than a rat, mouse or rabbit bred in the wild, and non-human primates. These animals are asterisked in the drop-down box.

2.3.vii. Column G. Source of group

Choose the appropriate source. Note that for all specified animals, a source marked with an asterisk must be chosen. For non-specified animals, a non-asterisked source must be chosen.

2.3.viii. Column H. Project purpose or Specified Animal Breeding Colony group.

For AEC-approved project animals, select the most appropriate option that describes the primary purpose of the project as a whole, or the purpose of the project for which new-line GM animals are being produced. Because this option applies to the project as a whole, it must be identical for all groups that are part of the same project. The Specified Animal Breeding Colony option must not be chosen for project animals.

For Specified Animal Breeding Colonies, the Specified Animal Breeding Colony option must be chosen.

"The understanding of human or animal biology": projects that aim to increase the basic understanding of the structure, function and behaviour of animals, including humans, and processes involved in physiology, biochemistry and pathology.

"The maintenance and improvement of human or animal health and welfare": projects that aim to produce improvements in the health and welfare of animals, including humans.
Examples

- *Use of a sheep flock to donate blood to produce microbiological media*
- *Production of commercial anti-serum, antivenine*

"The improvement of animal management or production": projects that aim to produce improvements in domestic or captive animal management or production.

"The achievement of education objectives": the purpose of the project is not to acquire new knowledge, rather to pass on established knowledge or training to others. This includes interactive or demonstration classes in methods of animal husbandry, management, examination and treatment.
Examples

- *Animals used by veterinary schools to teach examination procedures such as pregnancy diagnosis*
- *Sheep used in shearing demonstration classes for students*
- *Animals used to teach animal care to TAFE students*

"Environmental objectives": projects that aim to increase the understanding of the animals' environment or its role in it, or aim to manage wild or feral populations. These include studies to determine population levels and diversity and may involve techniques such as radio tracking.

"Specified Animal Breeding Colony group": for Specified Animal Breeding Colony animals ONLY.

2.3.ix. Column I. Project benefit or Specified Animal Breeding Colony group:

For AEC-approved project animals, select the option that best describes the benefit of the project as a whole, or the benefit of the project for which new-line GM animals are being produced. Because this option applies to the project as a whole, it must be identical for all groups that are part of the same project. The Specified Animal Breeding Colony option must not be chosen for project animals.

For Specified Animal Breeding Colonies, the Specified Animal Breeding Colony group option must be chosen.

2.3.x. Column J. Particular procedure applied to project group or Specified Animal Breeding Colony group indicator

For AEC-approved project animals this column describes some particularly impacting, invasive, or controversial procedures that may have been undertaken on the group. If one of these has been conducted, select that option. If none of these procedures have been used, select the 'Other procedure' option. The Specified Animal Breeding Colony option must not be chosen for project animals.

For Specified Animal Breeding Colony animals, the Specified Animal Breeding Colony group option must be chosen.

2.3.xi. Column K. Impact of activities on project group or GM status of Specified Animal Breeding Colony group

For AEC-approved project animals, this describes the impact of any project activities on the welfare of the animals in the group. This includes the process of acquiring the animals if stress is likely to be involved (e.g. the capture of wild animals). Select the option reflecting the greatest impact of the procedure carried out on the group. The Specified Animal Breeding Colony group option must not be chosen for project animals.

Where an animal is euthanased, the code representing the highest-impact activity that the animal is subjected to prior to euthanasia should be chosen.

For Specified Animal Breeding Colony animals select one of the two GM status options for the Specified Animal Breeding Colony group.

"Observation Involving Minor Interference": studies in which the normal activities of animals are minimally impacted on.
Examples

- *Laboratory animals in cages*
- *Feeding trial, such as Digestible Energy determination of feed in a balanced diet*
- *Behavioural or growth study with minor environmental manipulation*
- *Teaching of normal, non-invasive husbandry such as handling, grooming, etc*
- *Production of products, such as hormones or drugs, in milk or eggs from genetically modified animals that are subject to normal husbandry procedures only*
- *Any of the above where the animal is euthanased at the culmination of its use.*

"Animal Unconscious Without Recovery": the animals are rendered unconscious under controlled circumstances (i.e. not in a field situation) with as little pain or distress as possible. Capture methods are not required. Any pain is minor and brief and does not require analgesia. Procedures are carried out on the unconscious animal that is then killed without regaining consciousness.
Examples

- *Animals(including fish) in laboratory killed painlessly for dissection, biochemical analysis, etc*
- *Teaching surgical techniques on live, anaesthetised patients that are not allowed to recover following the procedure*

"Minor Conscious Intervention": the animals are subjected to minor procedures that would normally not require anaesthesia or analgesia. Any pain is minor and analgesia usually unnecessary, although some distress may occur as a result of trapping or handling.
Examples

- *Capture and release (with or without tagging) of animals (including fish) in the wild*
- *Trapping and humane euthanasia for collection of specimens*
- *Ear notching (preferred for reduced impact), tail tipping and toe clipping (discouraged on welfare grounds) for identification of new line GM animals*
- *Injections, blood sampling in conscious animal*
- *Minor dietary or environmental deprivation or manipulation, such as feeding nutrient-deficient diets for short periods*
- *Stomach tubing, branding, disbudding, shearing, etc*

"Minor Operative Procedure With Recovery": the animals are rendered unconscious, with as little pain or distress as possible. A minor procedure such as cannulation or skin biopsy is carried out and the animals are allowed to recover (although the animal may later be humanely killed). Depending on the procedure, pain may be minor or moderate and post-operative analgesia may be appropriate.
Examples

- *Biopsies or blood sampling under anaesthesia or sedation*
- *Cannulations under anaesthesia or sedation*
- *Sedation/anaesthesia for relocation, examination or injections/blood sampling*
- *Field capture using chemical restraint methods*

"Surgery With Recovery": generally the animals are rendered unconscious, with as little pain or distress as possible. A major procedure such as abdominal or orthopaedic surgery is carried out and the animals are allowed to recover (although the animal may later be humanely killed). Post operative pain is usually considerable and at a level requiring analgesia.
Examples

- *Orthopaedic surgery*

- *Abdominal or thoracic surgery*
- *Transplant surgery*
- *Mulesing, surgical castration without anaesthesia*
- *Surgery under anaesthesia for implantation of telemetry tags*

"Minor Physiological Challenge": the animals remain conscious for some or all of the procedure. There is interference with the animals' physiological or psychological processes. The challenge may cause only a small degree of pain/distress or any pain/distress is quickly and effectively alleviated.
Examples
- *Minor infection, minor or moderate phenotypic modification, early oncogenesis*
- *Arthritis studies with pain alleviation.*
- *Prolonged deficient diets, induction of metabolic disease.*
- *Polyclonal antibody production*
- *Antiserum production*

"Moderate to Major Physiological Challenge": the animals remain conscious for some or all of the procedure. There is interference with the animals' physiological or psychological processes. The challenge causes a moderate or large degree of pain/distress that is not quickly or effectively alleviated.
Examples
- *Major infection, major phenotypic modification, oncogenesis without pain alleviation*
- *Arthritis studies with no pain alleviation, uncontrolled metabolic disease*
- *Isolation or environmental deprivation for extended periods*
- *Monoclonal antibody raising in mice (discouraged – alternatives are available)*

"Death As An Endpoint": this category only applies to those rare cases where a procedure is designed to cause the death of animals with no humane end-point. A Part C form must be completed for each project using this procedure. Death as an endpoint does not include**:** animals killed for dissection; animals which are euthanased on completion of the project or when predictive signs of death have been determined and alleviated; animals that are killed if something goes wrong; accidental deaths; or death by natural causes.
Examples
- *Toxicity testing (LD50, LC50)*
- *Testing of antivenoms*
- *Fatal disease progression*

"Specified Animal Breeding Colony group: non-GM breeding only": routinely bred specified animals with no genetic modification.

"Specified Animal Breeding Colony group: established GM line breeding": specified animals that have undergone genetic modification (or are from lines of animals resulting from genetic modification) according to AEC-approved SOPs.

2.3.xii. Column L. Number of animals in project group or in breeding group in 2010
Enter the total number of animals in the project group or breeding group during 2010. Where a precise measure of the numbers is impractical, such as for very large groups of animals (e.g. fish schools) or for non-captive animals, an estimate is satisfactory.

For Specified Animal Breeding Colony groups, this is the sum of:
- animals at the start of the year;
- animals acquired; and
- animals born,

minus live animals assigned to AEC-approved projects and not returned unused for re-issue.

2.3.xiii. Column M. Number of deaths in project group or breeding group in 2010.

Enter the number of animals in the project group or breeding group that die or are culled during the reporting period. This includes animals that are euthanased, animals killed for dissection, accidental deaths, death as an endpoint, or death by other causes. Do not include the deaths of animals that are not being kept for the purpose of the licence, such as wastage deaths of agricultural animals that are primarily managed for agricultural purposes by commercial operators. Reporting in this column relates to ethical as opposed to welfare considerations.

Note that this entry will often generate an error, indicated by being outlined in red and crossed-through. Options chosen that may generate errors in this cell are:

- Where the options "Animal unconscious without recovery" or "Death as an end-point" are chosen in the Impact column (Column I), that group must have 100% deaths (ie the same numbers in the Number used and Fate columns). If not all the animals were killed, those left alive must be described as a separate group in a new line.
- The number of animals dead from a project group or breeding group may never exceed that used or held. Therefore the cell in Column L (Total used) may never be more than that in Column L (All deaths).

Reminder – For AEC-approved project animals, all lines describing groups from the same project must have the same entry for columns that apply to the project as a whole i.e. Columns C, D, E, H, and I.

3. SUBMISSION OF RETURN DOCUMENTS

The licence holder is responsible for submitting a complete and accurate Return of animal use by 31 March 2011. This may include a Part A, a Part B, and a Part C.

As with last year, because the Part A flags inconsistent entries, and these are explained in the Help function and in the Guidelines, the BAW will not be vetting Parts A prior to accepting the declaration form (Part B).

The Part A table may be submitted to the Bureau of Animal Welfare by (in order of preference):

- E-mailing the spreadsheet as an attachment to: alan.fried@dpi.vic.gov.au Please put the name and or number of the licence in the subject line.
- Putting the spreadsheet onto a CD ROM and mailing to the following address (Not MAC users).

The Parts B and C Forms must be submitted by mail.

Due to continued difficulty with compliance in this matter, penalty infringement notices and fines will be issued to licence holders for failure to submit correct versions of all parts prior to the deadline.

4. QUERIES

If there are any queries on the Animal Use Return please do not hesitate to contact Alan Fried.

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475 Mickleham Rd
ATTWOOD VIC 3049
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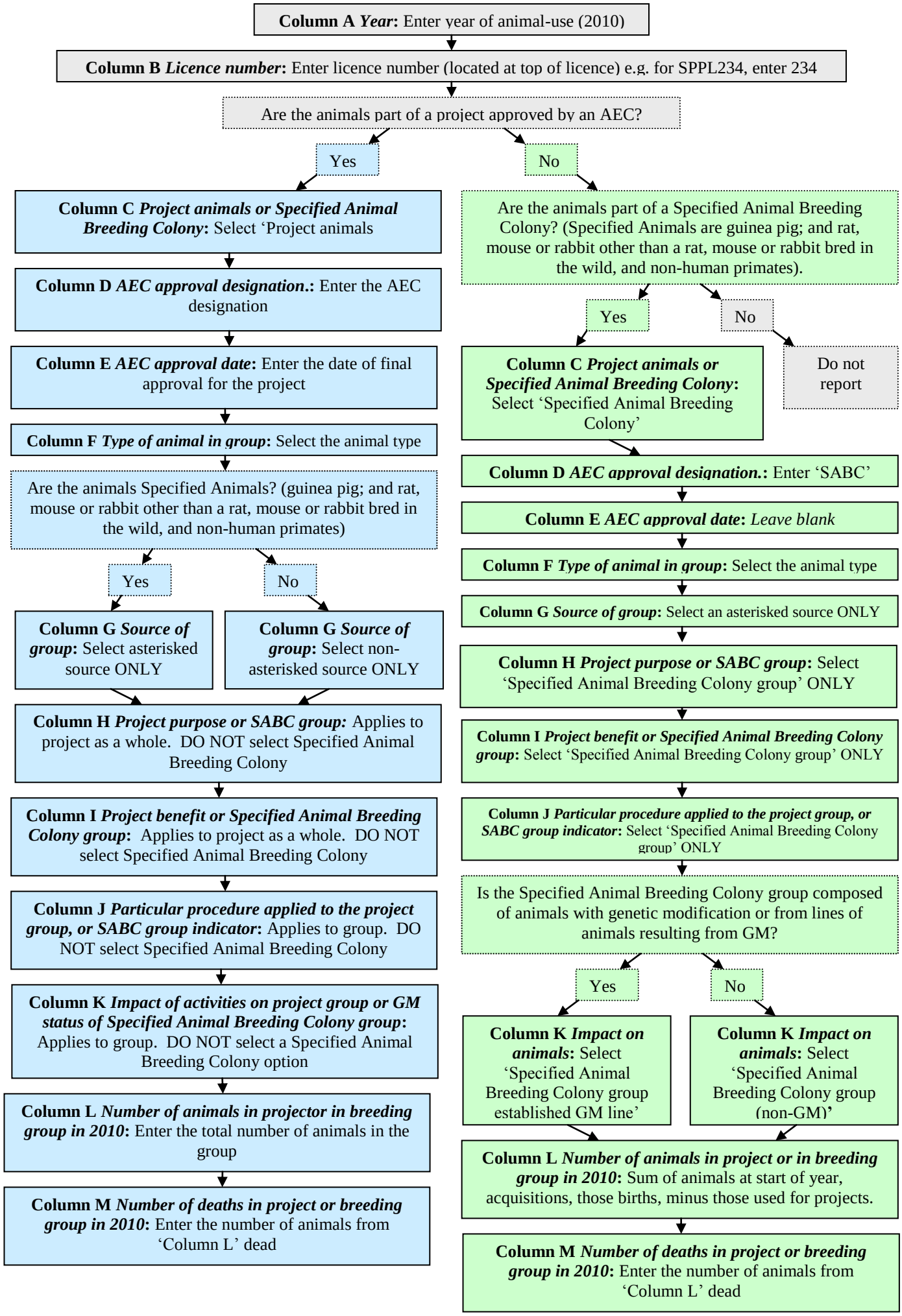
APPENDIX 1 FLOW CHART FOR COMPLETION OF 2010 ANIMAL USE RETURN SPREADSHEET



APPENDIX 2: CATEGORIES FOR COLUMNS C, F, G, H, I, J, K, L AND M
Shaded sections indicate choices exclusive to and compulsory for Specified Animal Breeding Colony animals

Column C. Animals assigned to an AEC-approved project or animals in a Specified Animal Breeding Colony

• AEC-approved project (including development of new GM strains, cloning)
• Specified Animal Breeding Colony

Column F. Type of animal in group *(* Specified animals)*

Laboratory	*Domestic (cont)*	*Reptiles (cont)*	*Native mammals (cont)*
• Ferrets (lab)	• Other domestic	• Turtles, tortoises	• Other native mammals
• *Guinea pigs** (lab)	**Birds**	• Other reptile	**Exotic feral mammals**
• Hamsters (lab)	• Exotic captive	**Primates**	• Camels (wild)
• *Mice** (lab)	• Exotic wild	• *Baboons**	• Cats (wild)
• *Rabbits** (lab)	• Native captive	• *Macaques**	• Cattle (wild)
• *Rats** (lab)	• Native wild	• *Marmosets**	• Goats (wild)
• Other laboratory mammal (not non-human primate)	• Poultry	• *Primates other**	• Hares (wild)
	• Other birds	**Native mammal**	• Horses (wild)
Domestic mammal	**Aquatic**	• Dasyurids	• Mice (wild)
• Cattle (domestic)	• Cephalopods	• Koalas	• Pigs (wild)
• Deer (domestic)	• Crustaceans	• Macropods	• Rabbits (wild)
• Goats (domestic)	• Fish	• Native Rats, Mice	• Rats (wild)
• Horses (domestic)	**Amphibia**	• Possums, Gliders	• Wild dogs and foxes
• Pigs (domestic)	• Amphibians	• Wombats	• Other exotic feral mammal
• Sheep (domestic)	**Reptiles**	• Monotremes	**Zoo**
• Cats (non-wild)	• Lizards	• Seals and sealions	• Exotic zoo mammal
• Dogs (non-wild)	• Snakes	• Whales and dolphins	

Column G. Source of group

For specified animals (guinea pig; non-wild bred mouse, rat & rabbit; primate)	*All other animals cont*
• Own derivation, or	• Commercial supplier
• Victoria –Specified Animals Breeding Licence, or	• Private donation
• Interstate institution authorised to distribute specified animals	• Municipal pound
	• Privately owned animals used on a farm
• Imported from overseas	• Animals in their natural habitat
• Other	• Removed from Australian natural habitat for the project
All other animals	• Australian captive colony/zoo
• Own derivation	• Other source

Column H. Project purpose or Specified Animal Breeding Colony group

Fundamental purpose of project	*Project purpose cont*
• The understanding of human or animal biology	• The achievement of educational objectives
• Maintenance and improvement of human or animal health and welfare	• Environmental objectives
	Specified Animal Breeding Colony
• Improvement of animal management or production	**(Guinea pig; non-wild bred mouse, rat, rabbit; primate)**
	• Specified Animal Breeding Colony group

Column I. Project benefit or Specified Animal Breeding Colony group

Benefit provided by project	*Project benefit cont*
• Fundamental biology/physiology • Diseases-human • Diseases-animal • Diseases- zoonotic • Environmental monitoring/ecology • Domestic animal management/production • Wildlife management/conservation • Vertebrate pest management • Production of biological products • Xenotransplantation (transplantation of living	organs, tissues or cells from one species to another) • Development of techniques- remedial, surgical, diagnostic • Education (demonstration) • Training (student use of animals) • Regulatory product testing (e.g. vaccines, chemical, drug evaluation) **Specified Animal Breeding Colony animals only (Guineapig, non-wild mouse, rat, rabbit; primate)** • Specified Animal Breeding Colony group

Column J. Particular procedure applied to the project group, or Specified Animal Breeding Colony group indicator

Key particular procedures; if not relevant select 'Other'	*Procedure cont*
• Attachment or insertion of devices for long term direct or telemetric monitoring • Adversive stimuli for behavioural training, or for inducing a state of stress integral to the experiment • Burning or scalding • Induction of other disease model (e.g. diabetes, cardiac disease) • Gene manipulative technology • Immunomodulatory methods • Induction of infection • Induction of neoplasia • Interference with the central nervous system or sensory capacity or brain centres controlling that capacity	• *In vivo* production of monoclonal antibody • *In vivo* production of polyclonal antibody • Ionising radiation exposure • Neuromuscular blocking agents or electro-immobilisation Ocular irritancy testing Skin irritancy testing involving a chemical, or cosmetic, household, or industrial preparation • Toxicity testing • Other procedure **Specified Animal Breeding Colony animals only (Guineapig, non-wild mouse, rat, rabbit; primate)** • Specified Animal Breeding Colony group

Column K. Impact of activities on project group or GM status of Specified Animal Breeding Colony group

Impact of the procedure on the group	*Impact of procedure cont*
• Observational study involving minor interference • Animal unconscious without recovery • Minor conscious intervention, no anaesthesia • Minor operative procedures with recovery • Surgery with recovery • Minor physiological challenge • Moderate to major physiological challenge	• Death as an end point - MUST COMPLETE A PART C FORM **Specified Animal Breeding Colony animals only (Guineapig; non-wild mouse, rat, rabbit; primate)** • Specified Animal Breeding Colony group (non-GM) • Specified Animal Breeding Colony group established GM line

Column L. Number of animals in project or breeding group in 2010

Enter the total number of animals in the group or breeding colony during 2010. For Specified Animal Breeding Colony groups, this is the sum of:

- animals at the start of the year;
- animals acquired; and
- animals born,

minus live animals assigned to AEC-approved projects and not returned unused for re-issue.

Column M. Number of deaths in project or breeding group in 2010

Indicate number of dead animals in the scientific procedure group or breeding group during 2010. (i.e. include death as an endpoint, euthanasia, culled project or breeding stock, or unexpected death).

APPENDIX 3 - EXAMPLE OF A COMPLETED PART A, INCLUDING REPORTING OF SPECIFIED ANIMAL BREEDING STOCK

In 2010 licence SPPL301 used mice and rats (specified animals), and fish in 2 AEC-approved projects (Projects 00061 and 00046). In addition, the licence bred mice and rats (specified animals) for use by the licence.

The following table illustrates how the animal use procedures and the breeding of specified animals is to be described. The inclusion of 'group numbers' are illustrative only and should not be included in the submitted worksheet.

	A Year	B Licence no.	C Project or Specified Animal Breeding Colony	D AEC approval no.	E AEC approval date	F Type of animal	G Source	H Purpose of animal use	I Benefit focus of animal use	J Particular procedure	K Impact on animals	L Total used	M All deaths
Group 1	2010	301	AEC-approved project	00061	1/4/2000	Mice	Own derivation	Maintenance human health etc	Diseases human	Other procedure	Animal unconscious without recovery	20	20
Group 2	2010	301	AEC-approved project	00061	1/4/2000	Rats	Own derivation	Maintenance human health etc	Diseases human	Other procedure	Animal unconscious without recovery	75	75
Group 3	2010	301	AEC-approved project	00061	1/4/2000	Rats	Own derivation	Maintenance human health etc	Diseases human	Other procedure	Observational study etc	10	0
Group 1	2010	301	AEC-approved project	00046	27/6/2000	Fish	Commercial supplier	Understanding biology etc	Fundamental biology etc	Other procedure	Animal unconscious without recovery	19	19
Group 2	2010	301	AEC-approved project	00046	27/6/2000	Fish	Commercial supplier	Understanding biology etc	Fundamental biology etc	Other procedure	Minor Physiological challenge	5	0
Group 3	2010	301	AEC-approved project	00046	27/6/2000	Mice	Own derivation	Understanding biology etc	Fundamental biology etc	Other procedure	Animal unconscious without recovery	5	5
Group 1	2010	301	Specified Animal Breeding Colony	SABC	N/A	Mice	Own derivation	Specified Animal Breeding Colony	Specified Animal Breeding Colony	Specified Animal Breeding Colony	Specified Animal Breeding Colony (non-GM)	5,235	293
Group 2	2010	301	Specified Animal Breeding Colony	SABC	N/A	Mice	Own derivation	Specified Animal Breeding Colony	Specified Animal Breeding Colony	Specified Animal Breeding Colony	Specified Animal Breeding Colony established GM line	1,987	183
Group 3	2010	301	Specified Animal Breeding Colony	SABC	N/A	Rats	Own derivation	Specified Animal Breeding Colony	Specified Animal Breeding Colony	Specified Animal Breeding Colony	Specified Animal Breeding Colony established GM line	3,896	221

Procedure animals

- Project 00061 was assigned rats and mice, with similar procedures on all the animals. As such, the project was broken down into 2 groups, one for the mice and one for the rats. However, 10 rats were assigned to but did not undergo procedures. A third line was used to describe these animals with zero in the fate column as these rats was carried-over for future procedures under the project (Group 3).
- Project 00046 was assigned laboratory mice and fish, forming 2 initial groups. In addition 19 fish were killed and 5 recovered from minor operative procedures. To describe this variability the fish group was further split into 2, and ultimately the project was described by 3 groups and lines. A zero was entered under the 'All deaths' Column M for group 2, to indicate that no animals died or were killed in this group.

Specified Animal` Breeding Colony groups

The licence bred and used for breeding non-GM mice, and mice and rats from established GM strains:
Project or Specified Animal Breeding Colony Column C, 'Specified Animal Breeding Colony' is selected indicating specified animals kept as a general breeding colony for stock animals, rather than animals used in a project of scientific procedures.
AEC approval Columns D and E: in place of the AEC approval number "SABC" was entered. N/A was included in the Date of approval column.
Source Column G: Own derivation (specified animals) is entered for all lines.
Purpose, Benefit and Particular procedure Columns H, I, and J: "Specified Animal Breeding Colony" is selected in each. These are the only choices available to breeding stock animals for these columns.
Impact column K: One group of mice and the rats produced by SABL301 were breeding from established GM animals. "Specified Animal Breeding Colony established GM line" has been selected for these. 'Specified Animal Breeding Colony (non-GM)" was selected for the non-GM strain mice group.
Total used Column L: numbers entered refer to the breeding-stock animals. Progeny assigned to scientific procedure projects are not included in the Specified Animal Breeding Colony numbers.
All deaths Column M: the number of animals culled or died while in the breeding program is indicated for each of the 3 groups (i.e. of the numbers in Column L . This does not include the fate of animals once they have left the breeding colony and are assigned to scientific procedures projects.