

STATISTICS OF ANIMAL USE IN RESEARCH AND TEACHING

VICTORIA

REPORT NUMBER 29

1 January, 2011 to 31 December, 2011

compiled by:

**BUREAU OF ANIMAL WELFARE
BIOSECURITY VICTORIA
DEPARTMENT OF PRIMARY INDUSTRIES**

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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 29 represents a compilation of the returns for 1 January to 31 December 2011. 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 2011 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	Animal management/production	Educational	Environmental	Human/animal biology	Human/animal health/welfare	Total
Amphibians	32	1,355	4,192	1,356	2,012	8,947
Birds exotic captive					57	57
Birds exotic wild	700	10	84	558		1,352
Birds native captive	16			185		201
Birds native wild	128	2,805	17,888	3,160	542	24,523
Birds other		657		6		663
Cats (non-wild)		318		72	106	496
Cats (wild)			27		7	34
Cattle (domestic)	12,233	2,737	256	100	13,946	29,272
Cattle (wild)	5					5
Cephalopods		35	1,407	463		1,905
Crustaceans		374	23,728	2,835		26,937
Dasyurids	24	75	1,235	121		1,455
Dogs (non-wild)	136	1,178	1	72	1,168	2,555
Dogs, foxes (wild)			100			100
Exotic feral mammals other	2		15			17
Exotic Zoo mammals	4				17	21
Ferrets (lab)					2,765	2,765
Fish	83,607	2,087	656,340	13,128	801	755,963
Goats (domestic)	356	8		14		378
Goats (wild)			5			5
Guinea pigs (lab)		181	5	473	7,439	8,098
Horses (domestic)	201	591		33	609	1,434
Koalas	36		381	9	28	454
Laboratory mammals other				165	329	494
Lizards		108	937	750		1,795
Macaques		8		57	4	69
Macropods	357	62	968	1,602	175	3,164
Marmosets		14		83	147	244
Mice (wild)		154	605	411	40	1,210
Monotremes	9		124		6	139
Mice (lab)	10,843	8,784		387,041	179,207	585,875
Native mammals other	21	154	841	144		1,160
Native rats, mice	48	759	1,908	8		2,723
Other domestic mammals	75	100			26	201
Pigs (domestic)		108		425	8,083	8,616
Possums, Gliders	35	49	622	156		862
Poultry	250	892		1,251	1,029,894	1,032,287
Rabbits (lab)	20	158		522	2,053	2,753
Rabbits (wild)			12			12
Rats (lab)		1,267		21,039	6,724	29,030
Rats (wild)			376			376
Reptiles other		4				4
Seals, Sealions	100		1,332	3	5	1,440
Sheep (domestic)	35,776	31,688		997	4,704	73,165
Snakes		5	72			77
Tortoises/ turtle		7	376	140		523
Whales, Dolphins	120		132			252
Wombats			322		42	364
Total	145,134	56,732	714,291	437,379	1,260,936	2,614,472

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	Municipal pound	Own Derivation	Private donation	Privately owned animals on afarm	Removed from natural habitat	Other	Total
Amphibians			6,735	48	1,602		74			412	76	8,947
Birds exotic captive					57							57
Birds exotic wild			1,287							65		1,352
Birds native captive			14	76	75			13		12	11	201
Birds native wild			24,511								12	24,523
Birds other			646		6						11	663
Cats (non-wild)					4		82	19	4		387	496
Cats (wild)			17	7	10							34
Cattle (domestic)					641		1,569	28	27,030		4	29,272
Cattle (wild)					5							5
Cephalopods			1,407							498		1,905
Crustaceans			21,376		2,741					2,820		26,937
Dasyurids			1,277	158			20					1,455
Dogs (non-wild)			1		231	788	54	284	72		1,125	2,555
Dogs, foxes (wild)			100									100
Exotic feral mammals other			15								2	17
Exotic Zoo mammals				21								21
Ferrets (lab)					2,765							2,765
Fish			637,405	206	24,090		80,941	770		12,350	201	755,963
Goats (domestic)					14				356		8	378
Goats (wild)			5									5
Guinea pigs (lab)	8,098											8,098
Horses (domestic)					518		298	43	559		16	1,434
Koalas			392							62		454
Laboratory mammals other							494					494
Lizards			1,558	122	6		8			101		1,795
Macaques	69											69
Macropods			2,387	56			297			424		3,164
Marmosets	244											244
Mice (wild)			759		40		350			61		1,210
Monotremes			133	6								139
Mice (lab)	577,802	8,073										585,875
Native mammals other			1,088	23						49		1,160
Native rats, mice			2,699	5			8			11		2,723
Other domestic mammals					2				101		98	201
Pigs (domestic)					8,536		32		46		2	8,616
Possums, Gliders			674	165						23		862
Poultry					1,030,813		991		450		33	1,032,287
Rabbits (lab)	2,735	18										2,753
Rabbits (wild)			12									12
Rats (lab)	28,922	108										29,030
Rats (wild)			376									376
Reptiles other					2						2	4
Seals, Sealions			1,432	8								1,440
Sheep (domestic)					1,874		13,345		57,544		402	73,165
Snakes			72		5							77
Tortoises/ turtle			445				4			74		523
Whales, Dolphins			252									252
Wombats			322							34	8	364
Total	617,870	8,199	707,397	901	1,074,037	788	98,567	1,157	86,162	16,996	2,398	2,614,472

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	CNS	GM	Immu-no mod	Infection	Ionising radiation	Long attach/insert	Mono-clonal a/b prod	Neo-plasia	Neuro-musc block, electro-immob	Other disease	Poly-clonal a/b prod	Skin irritancy	Toxicity	Other procedure	Total
Amphibians			340	180			191							35	8,201	8,947
Birds exotic captive															57	57
Birds exotic wild															1,352	1,352
Birds native captive	16						14								171	201
Birds native wild							3,836								20,687	24,523
Birds other															663	663
Cats (non-wild)		4		19			60			4	5				404	496
Cats (wild)															34	34
Cattle (domestic)				19	71		32					1,372			27,778	29,272
Cattle (wild)															5	5
Cephalopods															1,905	1,905
Crustaceans	12														26,925	26,937
Dasyurids							17								1,438	1,455
Dogs (non-wild)				90	5		8								2,452	2,555
Dogs, foxes (wild)															100	100
Exotic feral mammals other							2								15	17
Exotic Zoo mammals															21	21
Ferrets (lab)				15	2,704							46				2,765
Fish	4,968	250	740				363			7	360			10,078	739,197	755,963
Goats (domestic)												20			358	378
Goats (wild)															5	5
Guinea pigs (lab)			43				94	32			84	185		412	7,248	8,098
Horses (domestic)					9							360			1,065	1,434
Koalas							65								389	454
Laboratory mammals other		101									319				74	494
Lizards															1,795	1,795
Macaques				45			8			2					14	69
Macropods	163				11		515								2,475	3,164
Marmosets		55													186	244
Mice (wild)							97				11				1,102	1,210
Monotremes							66								73	139
Mice (lab)	1,909	3,026	106,472	33,165	49,357	16,758	1,221	552	80,188		57,987	876		1,049	233,315	585,875
Native mammals other							113								1,047	1,160
Native rats, mice							66								2,657	2,723
Other domestic mammals												20			181	201
Pigs (domestic)			32		6,784						92	15			1,693	8,616
Possums, Gliders							153								709	862
Poultry	497		100	346	22,520							6			1,008,818	1,032,287
Rabbits (lab)					52	167	42	48			153	308	6	24	1,953	2,753
Rabbits (wild)															12	12
Rats (lab)	458	1,220	2	424	66	33	980	38	71		6,566	17		199	18,956	29,030
Rats (wild)							6								370	376
Reptiles other															4	4
Seals, Sealions	5						18								1,417	1,440
Sheep (domestic)	60	21		324	47		533	20			272	82			71,806	73,165
Snakes															77	77
Tortoises/ turtle							116								407	523
Whales, Dolphins							2								250	252
Wombats															364	364
Total	8,088	4,677	107,729	34,627	81,626	16,958	8,618	690	80,259	13	65,852	3,307	6	11,797	2,190,225	2,614,472

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 physiological challenge	Minor intervention, no anaesthesia	Minor operative procedures recovery	Surgery with recovery	Major physiological challenge	Death as an end point	Total
Amphibians	1,178	2,188	340	4,791		290	125	35	8,947
Birds exotic captive					57				57
Birds exotic wild		1,242	19	91					1,352
Birds native captive	23	118	23	37					201
Birds native wild	690	16,528	120	7,163	22				24,523
Birds other		647	6			10			663
Cats (non-wild)	35	109		57	5	290			496
Cats (wild)		29		1				4	34
Cattle (domestic)	2	15,341	628	13,238	63				29,272
Cattle (wild)				5					5
Cephalopods		121		527			1,257		1,905
Crustaceans	71	116	43	19,953	6,544		210		26,937
Dasyurids	29	371		1,030	13	12			1,455
Dogs (non-wild)	213	1,313		494	12	523			2,555
Dogs, foxes (wild)		75		24				1	100
Exotic feral mammals		15		2					17
Exotic Zoo mammals		4		2	15				21
Ferrets (lab)			2,581				184		2,765
Fish	18,186	62,680	15,510	274,178	2,824	239	382,333	13	755,963
Goats (domestic)		358	6	14					378
Goats (wild)		5							5
Guinea pigs (lab)	726	106		5,398	525	194	781	368	8,098
Horses (domestic)	3	395	42	628	5	1	360		1,434
Koalas	25	199		193	37				454
Laboratory mammals	133	56	140	54	64	47			494
Lizards	3	385	51	1,356					1,795
Macaques	4	2		8	48	7			69
Macropods	556	1,619	42	361	517	58	11		3,164
Marmosets	33	101	3	58		49			244
Mice (wild)	40	111		1,059					1,210
Monotremes		68		71					139
Mice (lab)	117,101	54,852	68,739	161,576	39,964	51,218	85,911	6,514	585,875
Native mammals other	11	169	28	852	100				1,160
Native rats, mice	8	1,251		1,464					2,723
Other domestic		58		95		48			201
Pigs (domestic)	153	7,034	64	1,319		46			8,616
Possums, Gliders	9	425		279	149				862
Poultry	21,874	6,136	2,098	1,002,117			62		1,032,287
Rabbits (lab)	351	137	125	222	1,501	61	356		2,753
Rabbits (wild)		12							12
Rats (lab)	11,281	5,767	981	1,836	1,483	6,398	1,284		29,030
Rats (wild)		310		66					376
Reptiles other		2				2			4
Seals, Sealions		1,413		5	18		4		1,440
Sheep (domestic)	650	63,020	283	8,166	143	826	77		73,165
Snakes		9		68					77
Tortoises/ turtle		211		312					523
Whales, Dolphins		250		2					252
Wombats	19	322	17		6				364
Total	173,407	245,680	91,889	1,509,172	54,115	60,319	472,955	6,935	2,614,472

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

Animal type	Biological products	Biology/ physiology	Demonstration	Diseases animal	Diseases human	Diseases zoonotic	Dom. animal manage	Environmental	Pest management	Regulatory testing	Technique develop.	Training	Wildlife management	Xenotransplantation	Total
Amphibians		1,481	329	2		1,470		2,583				311	2,771		8,947
Birds exotic captive				57											57
Birds exotic wild		1,258	10					19					65		1,352
Birds native captive		105		6				14					76		201
Birds native wild		1,628	70			580		13,034				165	9,046		24,523
Birds other		6	324								323	10			663
Cats (non-wild)		52	7	20	52		58			20	26	261			496
Cats (wild)				7				14	10			3			34
Cattle (domestic)		119	2,118	6,191	1,372		18,663			123	6	680			29,272
Cattle (wild)							5								5
Cephalopods		463	5					150			30		1,257		1,905
Crustaceans		3,318	366					23,043					210		26,937
Dasyurids	6	42	6					863				62	476		1,455
Dogs (non-wild)	3	10	53	171	23	5	997			207	66	1,019	1		2,555
Dogs, foxes (wild)								80	1			1	18		100
Exotic feral mammals								13				2	2		17
Exotic Zoo mammals		2											19		21
Ferrets (lab)					2,494	271									2,765
Fish		19,664	1,933		1,743		82,324	257,962	156			130	392,051		755,963
Goats (domestic)	6	14	8	350											378
Goats (wild)								5							5
Guinea pigs (lab)		439	5	1,996	5,453					16	10	179			8,098
Horses (domestic)		9	18	285	370	3	173				9	567			1,434
Koalas				28				15				117	294		454
Laboratory mammals		165			329										494
Lizards		787	2					51				83	872		1,795
Macaques	4	12			45							8			69
Macropods		1,059		169		42		1,379			10	61	444		3,164
Marmosets	2	225			3							14			244
Mice (wild)	1		4		40			421				230	514		1,210
Monotremes								56				2	81		139
Mice (lab)	499	185,309	625	41,065	345,279	762	414	189		2,409	3,178	4,503		1,643	585,875
Native mammals other		49	42					337				101	631		1,160
Native rats, mice		8	6					2,277				174	258		2,723
Other domestic	20		52	6			73					50			201
Pigs (domestic)		284	4	1,025	144	15	169			6,784	8	159		24	8,616
Possums, Gliders			4	1				286	8			44	519		862
Poultry	20,427	3,125	242	1,003,412	768	731	364	5		2,576	15	622			1,032,287
Rabbits (lab)	184	353	2	1,797	222					30	20	145			2,753
Rabbits (wild)								12							12
Rats (lab)	87	10,195	184	353	16,943					79	98	1,091			29,030
Rats (wild)								345	6			6	19		376
Reptiles other												4			4
Seals, Sealions		8						1,323					109		1,440
Sheep (domestic)	415	899	29,704	26,042	710	30	11,180			109	165	3,911			73,165
Snakes								8				5	64		77
Tortoises/ turtle		76	3					172				4	268		523
Whales, Dolphins													252		252
Wombats				33		9		322							364
Total	21,654	231,164	36,126	1,083,016	375,990	3,918	114,420	304,978	181	12,353	3,964	14,724	410,317	1,667	2,614,472

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	35	1,462	1,497	8,947
Birds exotic captive				57
Birds exotic wild		21	21	1,352
Birds native captive		45	45	201
Birds native wild		746	746	24,523
Birds other		6	6	663
Cats (non-wild)		68	68	496
Cats (wild)	4	1	5	34
Cattle (domestic)		127	127	29,272
Cattle (wild)				5
Cephalopods		1,869	1,869	1,905
Crustaceans		14,336	14,336	26,937
Dasyurids		52	52	1,455
Dogs (non-wild)		229	229	2,555
Dogs, foxes (wild)	1		1	100
Exotic feral mammals other				17
Exotic Zoo mammals				21
Ferrets (lab)		882	882	2,765
Fish	13	482,870	482,883	755,963
Goats (domestic)		19	19	378
Goats (wild)				5
Guinea pigs (lab)	368	2,983	3,351	8,098
Horses (domestic)		36	36	1,434
Koalas		44	44	454
Laboratory mammals other		494	494	494
Lizards		265	265	1,795
Macaques		33	33	69
Macropods		721	721	3,164
Marmosets		80	80	244
Mice (wild)		484	484	1,210
Monotremes				139
Mice (lab)	6,514	415,147	421,661	585,875
Native mammals other		24	24	1,160
Native rats, mice		30	30	2,723
Other domestic mammals		2	2	201
Pigs (domestic)		563	563	8,616
Possums, Gliders		20	20	862
Poultry		27,532	27,532	1,032,287
Rabbits (lab)		783	783	2,753
Rabbits (wild)				12
Rats (lab)		22,325	22,325	29,030
Rats (wild)		4	4	376
Reptiles other				4
Seals, Sealions		3	3	1,440
Sheep (domestic)		3,585	3,585	73,165
Snakes		21	21	77
Tortoises/ turtle		2	2	523
Whales, Dolphins				252
Wombats		19	19	364
Total	6,935	977,933	984,868	2,614,472

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

Overall purpose	Biological products	Biology/ physiology	Demonstration	Diseases animal	Diseases human	Diseases zoonotic	Dom animal management	Environmental	Pest management	Regulatory testing	Technique development	Training	Wildlife management	Xenotransplantation	Total
Educational objectives	9	528	35,297	50	566		383	1,058			3,342	12,738	2,761		56,732
Environmental objectives		10,364	14	3		1,470	592	299,339	173		6	365	401,965		714,291
Improve animal management/ Production	12	2,679	746	23,744	8,132	27	105,367			390		1,430	2,607		145,134
Maintenance/ improvement human/animal health/welfare	21,085	11,682		1,055,772	147,609	1,417	8,068	2,201		11,005	582	148	1,293	74	1,260,936
Understand human/animal biology	548	205,911	69	3,447	219,683	1,004	10	2,380	8	958	34	43	1,691	1,593	437,379
Total	21,654	231,164	36,126	1,083,016	375,990	3,918	114,420	304,978	181	12,353	3,964	14,724	410,317	1,667	2,614,472

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	5,093	38,112	6,270	3,790	1,471	974	1,022		56,732
Environmental objectives	14,770	25,517	271,413	8,717	14,532	76	379,261	5	714,291
Improve animal management/production	12,093	95,409	36,525	351	345	411			145,134
Maintenance/improvement human/animal health/welfare	40,849	34,339	1,074,849	16,079	32,815	25,428	29,759	6,818	1,260,936
Understand human/animal biology	100,602	52,303	120,115	25,178	42,726	33,430	62,913	112	437,379
Total	173,407	245,680	1,509,172	54,115	91,889	60,319	472,955	6,935	2,614,472

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	CNS	Long term attach/insert	GM	Immuno-modulatory methods	Infection induction	Ionising radiation	Monoclonal antibody production	Neoplasia	Neuro muscular block, electro-immob	Other disease	Polyclonal antibody production	Skin irritancy	Toxicity	Other	Total
Educational objectives			459	51		507					2	2			55,711	56,732
Environmental objectives	4,806	250	3,669							7				10,078	695,481	714,291
Improve animal management/production	16		150	8,192		72					24	6			136,674	145,134
Maintenance/improvement human/animal health/welfare	365	693	641	33,397	12,087	46,185	3,850	129	31,312		25,362	2,393	6	1,577	1,102,939	1,260,936
Understand human/animal biology	2,901	3,734	3,699	66,089	22,540	34,862	13,108	561	48,947	6	40,464	906		142	199,420	437,379
Total	8,088	4,677	8,618	107,729	34,627	81,626	16,958	690	80,259	13	65,852	3,307	6	11,797	2,190,225	2,614,472

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	Municipal pound	Own Derivation	Private donation	Private animals on farm	Removed from natural habitat	Other	Total
Educational objectives	10,412		5,665		2,220		2,918	170	32,033	1,625	1,689	56,732
Environmental objectives	5		689,632	440	2,919		10,256		250	10,687	102	714,291
Improve animal management/production	10,473	390	3,234	73	23,216		71,083		36,404	37	224	145,134
Maintenance/improvement human/animal health/welfare	194,642	932	2,584	56	1,041,214	788	2,113	899	17,325	186	197	1,260,936
Understand human/animal biology	402,338	6,877	6,282	332	4,468		12,197	88	150	4,461	186	437,379
Total	617,870	8,199	707,397	901	1,074,037	788	98,567	1,157	86,162	16,996	2,398	2,614,472

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

Impact on animal	Diseases animal	Diseases human	Diseases zoonotic	Dom animal management	Demonstration	Environmental	Biology/physiology	Biological products	Regulatory testing	Technique development	Training	Pest management	Wildlife management	Xenotransplantation	Total
Animal unconscious without recovery	1,142	58,287	37	2,360	924	11,488	70,352	20,464	657	98	3,888	8	3,643	59	173,407
Observational study involving minor interference	31,343	43,438		75,088	32,602	24,023	20,336	13	6,819	332	3,520	112	8,054		245,680
Minor conscious intervention, no anaesthesia	1,033,753	93,185	2,681	35,773	709	257,732	59,271	103	2,350	399	5,472		17,744		1,509,172
Minor operative procedures with recovery	5,515	22,079		279	135	7,037	12,934	104	608	3,019	656	34	1,658	57	54,115
Minor physiological challenge	1,006	48,616	466	706	1,241	4,404	32,914	463	1,696	21	214	22	120		91,889
Surgery with recovery	16	42,210		214		64	15,031	71	26	95	974		67	1,551	60,319
Major physiological challenge	5,570	66,028	734		515	230	20,214	436	197				379,031		472,955
Death as an end point	4,671	2,147					112					5			6,935
Total	1,083,016	375,990	3,918	114,420	36,126	304,978	231,164	21,654	12,353	3,964	14,724	181	410,317	1,667	2,614,472

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	CNS	Long term attach/insert	GM	Immuno modulatory methods	Infection induction	Ionising radiation	Monoclonal antibody production	Neoplasia	Neuromuscular block,electro-immob	Other disease	Polyclonal antibody production	Skin irritancy	Toxicity	Other	Total
Animal unconscious without recovery	265	137	749	19,820	3,295	20,565	484	10	573	11	10,350	256		278	116,614	173,407
Observational study involving minor interference	1,773	144	222	14,445	74	7,364	381	58	11,113		3,069				207,037	245,680
Minor conscious intervention, no anaesthesia	4,895	644	4,709	37,227	18,899	1,400	181	164	14,902	2	4,750	1,503	6	777	1,419,113	1,509,172
Minor operative procedures with recovery	24	334	1,107	11,602	2,419	1,191	178		2,988		7,414	84		373	26,401	54,115
Minor physiological challenge	579	16	15	771	5,650	26,412	2,740	3	13,429		18,949	954		10,014	12,357	91,889
Surgery with recovery	321	1,506	1,816	23,127	414	372	33		9,791		13,232				9,707	60,319
Major physiological challenge	218	1,896		737	3,876	24,322	12,961	455	27,463		8,024	510		320	392,173	472,955
Death as an end point	13										64			35	6,823	6,935
Total	8,088	4,677	8,618	107,729	34,627	81,626	16,958	690	80,259	13	65,852	3,307	6	11,797	2,190,225	2,614,472

TABLE 13: SPECIFIED ANIMALS USED IN BREEDING COLONIES

Animal type	Non GM	GM	Euthansia, humane killing, or unexpected death	Total
Guinea pigs (lab)	388		114	388
Macaques	250		9	250
Marmosets	156		14	156
Mice (lab)	365,009	558,293	664,805	923,302
Rabbits (lab)	489		170	489
Rats (lab)	48,543	1,744	21,840	50,287
Total	414,835	560,037	686,952	974,872

VICTORIAN BUREAU OF ANIMAL WELFARE

ANIMAL USE RETURN GUIDELINES INCLUDING B & C FORMS, 2011

An Animal Use Return must be submitted for all Scientific Procedures Premises, Scientific Procedures Fieldwork, and Specified Animals Breeding Licences held for any period during 2011, 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 2011.
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 2011.
3. Part C is a form that must be completed to report any Death as an Endpoint Procedures (DAEP) conducted under the licence in 2011. 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 2012.

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. These Guidelines and Part A, B, and C Forms, along with the list of Part A drop-down boxes, may 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 2011 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 2011 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 2011 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 2011. 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 2011 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 2011 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 (2011).

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 2011 is to be entered as 12/11/2011. 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 or as a result of misadventure.*
- “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 2011

Enter the total number of animals in the project group or breeding group during 2011. 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 2011.

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 2012. 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 INCLUDING OBTAINING COPIES OF FORMS

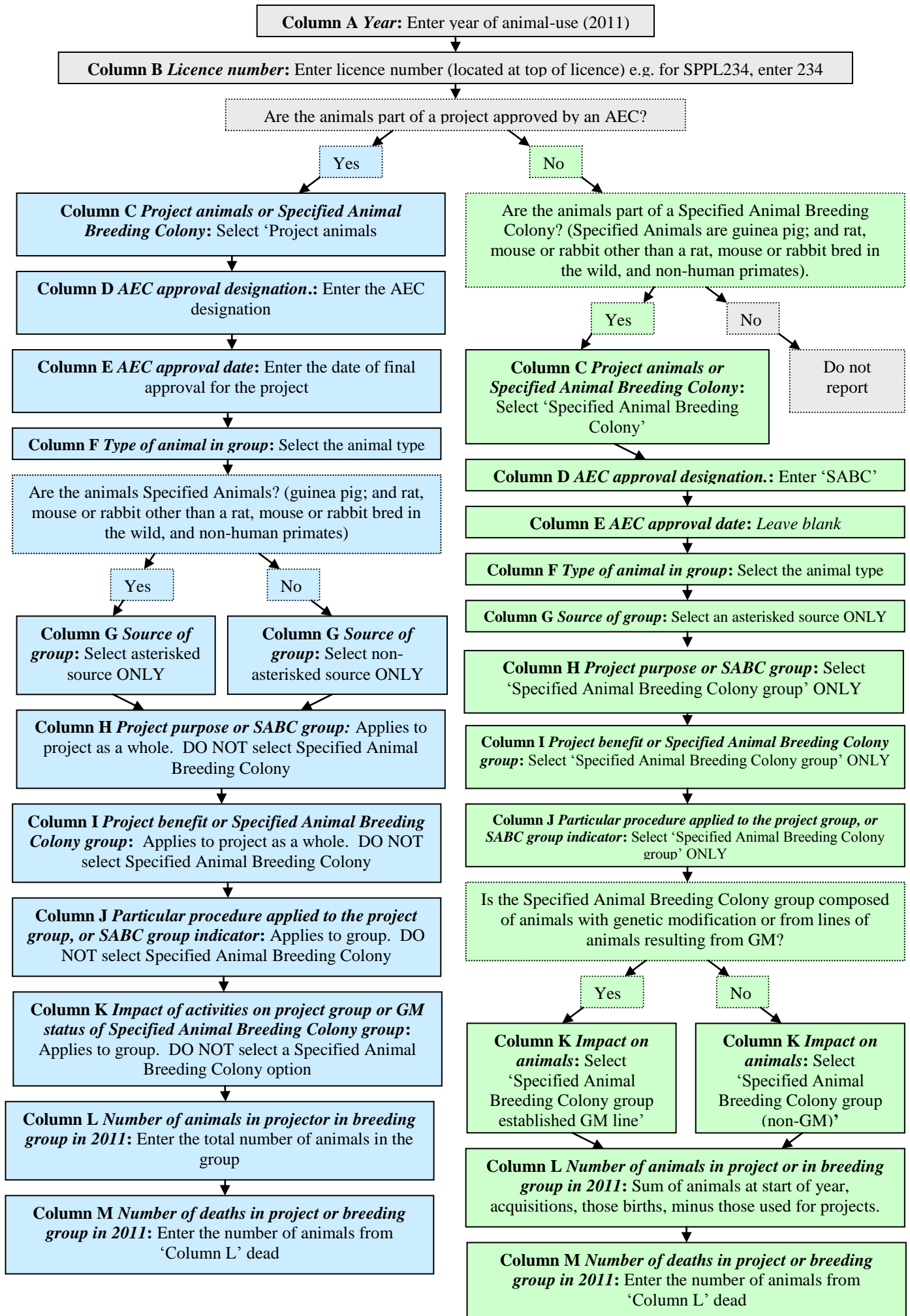
Queries regarding the Animal Use Return and requests for copies of the various forms and other documentation should be directed to Alan Fried.

Bureau of Animal Welfare
475 Mickleham Rd
ATTWOOD VIC 3049

Ph: (03) 9217 4425
Fax: (03) 9217 4416

alan.fried@dpi.vic.gov.au

APPENDIX 1 FLOW CHART FOR COMPLETION OF 2011 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

<ul style="list-style-type: none"> • AEC-approved project (including development of new GM strains, cloning)
<ul style="list-style-type: none"> • Specified Animal Breeding Colony

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

<p>Laboratory</p> <ul style="list-style-type: none"> • Ferrets (lab) • <u>Guinea pigs*</u> (lab) • Hamsters (lab) • <u>Mice*</u> (lab) • <u>Rabbits*</u> (lab) • <u>Rats*</u> (lab) • Other laboratory mammal (not non-human primate) 	<p><i>Domestic (cont)</i></p> <ul style="list-style-type: none"> • Other domestic <p>Birds</p> <ul style="list-style-type: none"> • Exotic captive • Exotic wild • Native captive • Native wild • Poultry • Other birds 	<p><i>Reptiles (cont)</i></p> <ul style="list-style-type: none"> • Turtles, tortoises • Other reptile <p>Primates</p> <ul style="list-style-type: none"> • <u>Baboons*</u> • <u>Macaques*</u> • <u>Marmosets*</u> • <u>Primates other*</u> <p>Native mammal</p> <ul style="list-style-type: none"> • Dasyurids • Koalas • Macropods • Native Rats, Mice • Possums, Gliders • Wombats • Monotremes • Seals and sealions • Whales and dolphins 	<p><i>Native mammals (cont)</i></p> <ul style="list-style-type: none"> • Other native mammals <p>Exotic feral mammals</p> <ul style="list-style-type: none"> • Camels (wild) • Cats (wild) • Cattle (wild) • Goats (wild) • Hares (wild) • Horses (wild) • Mice (wild) • Pigs (wild) • Rabbits (wild) • Rats (wild) • Wild dogs and foxes • Other exotic feral mammal <p>Zoo</p> <ul style="list-style-type: none"> • Exotic zoo mammal
<p>Domestic mammal</p> <ul style="list-style-type: none"> • Cattle (domestic) • Deer (domestic) • Goats (domestic) • Horses (domestic) • Pigs (domestic) • Sheep (domestic) • Cats (non-wild) • Dogs (non-wild) 	<p>Aquatic</p> <ul style="list-style-type: none"> • Cephalopods • Crustaceans • Fish <p>Amphibia</p> <ul style="list-style-type: none"> • Amphibians <p>Reptiles</p> <ul style="list-style-type: none"> • Lizards • Snakes 		

Column G. Source of group

<p>For specified animals (guinea pig; non-wild bred mouse, rat & rabbit; primate)</p> <ul style="list-style-type: none"> • Own derivation, or • Victoria –Specified Animals Breeding Licence, or • Interstate institution authorised to distribute specified animals • Imported from overseas • Other 	<p><i>All other animals cont</i></p> <ul style="list-style-type: none"> • Commercial supplier • Private donation • Municipal pound • Privately owned animals used on a farm • Animals in their natural habitat • Removed from Australian natural habitat for the project • Australian captive colony/zoo • Other source
<p>All other animals</p> <ul style="list-style-type: none"> • Own derivation 	

Column H. Project purpose or Specified Animal Breeding Colony group

<p>Fundamental purpose of project</p> <ul style="list-style-type: none"> • The understanding of human or animal biology • Maintenance and improvement of human or animal health and welfare • Improvement of animal management or production 	<p><i>Project purpose cont</i></p> <ul style="list-style-type: none"> • The achievement of educational objectives • <u>Environmental objectives</u> <p>Specified Animal Breeding Colony (Guinea pig; non-wild bred mouse, rat, rabbit; primate)</p> <ul style="list-style-type: none"> • Specified Animal Breeding Colony group
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Column I. Project benefit or Specified Animal Breeding Colony group

<p>Benefit provided by project</p> <ul style="list-style-type: none"> • 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 	<p><i>Project benefit cont</i></p> <ul style="list-style-type: none"> 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) <p>Specified Animal Breeding Colony animals only (Guineapig, non-wild mouse, rat, rabbit; primate)</p> <ul style="list-style-type: none"> • Specified Animal Breeding Colony group
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Column J. Particular procedure applied to the project group, or Specified Animal Breeding Colony group indicator

<p>Key particular procedures; if not relevant select 'Other'</p> <ul style="list-style-type: none"> • Attachment or insertion of devices for long term direct or telemetric monitoring • Aversive 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 	<p><i>Procedure cont</i></p> <ul style="list-style-type: none"> • <i>In vivo</i> production of monoclonal antibody • <i>In vivo</i> 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 <p>Specified Animal Breeding Colony animals only (Guineapig, non-wild mouse, rat, rabbit; primate)</p> <ul style="list-style-type: none"> • Specified Animal Breeding Colony group
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Column K. Impact of activities on project group or GM status of Specified Animal Breeding Colony group

<p>Impact of the procedure on the group</p> <ul style="list-style-type: none"> • 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 	<p><i>Impact of procedure cont</i></p> <ul style="list-style-type: none"> • Death as an end point - MUST COMPLETE A PART C FORM <p>Specified Animal Breeding Colony animals only (Guineapig; non-wild mouse, rat, rabbit; primate)</p> <ul style="list-style-type: none"> • Specified Animal Breeding Colony group (non-GM) • Specified Animal Breeding Colony group established GM line
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Column L. Number of animals in project or breeding group in 2011

Enter the total number of animals in the group or breeding colony during 2011. 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 2011

Indicate number of dead animals in the scientific procedure group or breeding group during 2011. (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 2011 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	2011	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	2011	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	2011	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	2011	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	2011	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	2011	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	2011	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	2011	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	2011	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.

