

Mandatory Annual Reporting (MAR) within the Mosaic Vivarium Database

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Glossary of Mosaic Terms

Disposition	= Reason for Death (Fate)
Protocol	= Ethics
Master Protocol	= Approval of Application for Breeding/Research/Teaching using Animals that encompasses all Protocol Allocations for a given range of dates.
Protocol Allocation Mating Count	 an allocated approval number for specific strain and/or species of animal within the Master Protocol. Determines whether an animal has ever been recorded as part of a mating within the database. A value of "0" = never mated.

Background

This document is created to assist Researchers in gathering information from the Mosaic database required for their Mandatory Annual Reports. There is ongoing development behind the scenes aiming to streamline the generation of reports for researchers working with UQ animals from 2021 onwards. <u>This will incorporate integration between the Mosaic database and MyResearch</u>. As such, the current workflows detailed within this document are subject to change for the future reporting periods. We will endeavour to notify you of these updates.

This Animal Census report will supply Researchers with usage numbers pertaining to basic BREED and EXPERIMENTAL ethics (Breed/Cull numbers, Animals used for Procedure etc). It will NOT generate a breakdown of AGES or GENOTYPES.

Please complete these workflows via the Animal Census Report **FIRST** to obtain your BREED and CULL numbers and then refer to the "Interim Researcher Guide to Protocol Allocations and Reporting" via the Protocol Worksheet for a workflow to obtain specific age and genotype breakdowns.

If your numbers for a strain do not match (total number obtained via this Animal Census versus Currently Assigned via the Protocol Worksheet) you may have animals that are/were currently housed within UQBR Colonies (Training/Sentinel/TASQ etc). These animals still need to be reported. Please contact the relevant Animal Facility to discuss this further.



Generating your Data Report

From any page, click on the Housing Tab from the header menu. From the drop down options select "Reports" -> Animal Census - Living

Mosaic⊗Vivarium Animals ▼ Cages ▼	Matings 👻 Colonies	Housing Protocols	Administration Vivarium	
My Home (click on the help (?) -> Questions/Feedback menu	at the top, right of the main yenu to	^{le} Cage Card Worksheet	developed for this page)	
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		Room Worksheet		
		Room History		
		Census		
		Cage Billing		
		Cage Billing - Daily		
		Cage Billing Maintenance		
		Cage History		
		Invoices		
	•	Reports •	Daily Tally Sheet	
			Housing Occupancy	
		· • → [Animal Census - Living	
			Animal Census - Disposed	



Once the Animal Census page has loaded you will be prompted to select a date range to generate your report. Select the appropriate date for the report. For example: If you are running the report in 2021 and you require report numbers for 2020, please select "Last Year".

Animal Census	select date range	-	Living Animal Census Disposed Animal Census Run Report
Reports living or disposed anim	Search	Q	protocol reported is the one most recently assigned (if any) before the end of the specified date range. See Help for more details on this report.
	Today	*	
	Yesterday		
	This Week		
	Last Week		
	This Month		
	Last Month		
	This Quarter		
	Last Quarter		
	This Year		
	Last Year	Ŧ	

After selecting the appropriate date range, leave "Living Animal Census" selected and click "Run Report".

Animal Census Last Year

 Living Animal Census

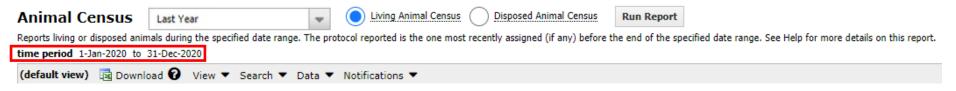
Reports living or disposed animals during the specified date range. The protocol reported is the one most recently assigned (if any) before the end of the specified date range. See Help for more details
--

Disposed Animal Census

Run Report

Depending on your numbers, it may take a short time to load your report. Please wait until a table appears with the heading "default view".

The "time period" should state 1-Jan-2020 to 31-Dec-2020 (which is correct for the reporting period for 2020 MAR reporting)





You will first need to select the correct Dataset from which the report will draw your statistics from. A Dataset has been created for MAR Reporting. From the (default view) header, please select "Data" \rightarrow "UQ MAR EoYReporting (DataAdmin, UQBR)"

(def	fault view)	🗟 Download 😧 View 🖲	 Search 	Data 🔻 Notifications 🕶
	_	•		New Data Set
	Animal	Colony Name	Colony Colony Number GMO ?	Save Current Data Set As
1	ANI16643	OG-AL MEED Servaue, 730		Edit Current Data Set
2	ANI16101	\$7.Co./Beed/.Jacket.PACE		L
3	010168	STRUKE BREED COOK HERE, C	4638	Delete Current Data Set
4	ANI16095	WERD (STRUMP) (CDUMS23)	9523 🗸	L
5	ANI15309	INFORMATIC Davis TRI	7458 V	Administrator Data Set Manager
6	ANI16063	Maria CodEC2MTerrate BHD	6718 🗸	L
7	ANI16505	Liffa Place View Con Vielance S	9036	L
8	ANI16103	N.Co. Sodi SRIA. Hondraff. 5(2)		✓ Default Data Set
9	ANI15777	HEALDHOP (HERE) BREED A.T	9525 🗸	L
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11	ANI16643	alli, marter, fasister, 211 M	99375	Line and the second sec
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14	ANT16739		· · · · · ·	Laboratory man unspecified unspecified u

Mosaic will now load the census report for the specific dataset selected. Please note you are now viewing the "default" view for the elected dataset.

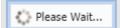
U	Q MAR EoYRepor	ting (default	view)	🗟 Download (🛛 Vie	w 🔻 Sear	ch 🔻 Da	ata 🔻 N	otificatior	is 🔻 🔤	T 🕑 💿 🔁 🛏 🤜	1 of 18	7 Þ ÞI	rows: 18	3650
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	Colony	Name	Colony Numbe		Mating Count	Disposition	Alive Before Reporting Period?	Alive After Reporting Period?	Report Run		Master Protocol Primary Investigator Author	Breeding First Date	Breeding First Date Before Reporting Period?	Count of Distinct Animal	



τ 🕜 📑 UQ MAR EoYReporting (default view) 🔯 Download 🔞 Data 🔻 Notifications 🔻 Search 🔻 View 💌 Ŧ New View... Colony Colony Name Species Number Save Current View As... 1 Laboratory marr un: 2 Laboratory man un: Edit Current View... 3 Laboratory man un: 4 Laboratory man Cul Delete Current View 5 Laboratory man un: 6 Laboratory man Ref Administrator View Manager... Laboratory man Ref 7 8 Laboratory man Cul 9 Laboratory man Cul Default View Laboratory man Alle 10 11 Laboratory man un UQ MAR EoYReporting (DataAdmin, UQBR) 12 Laboratory man un - -

From the "View" dropdown, please select "UQ MAR EoYReporting" (DataAdmin, UQBR).

The Selected view may take a bit of time to load (depending on the number of protocols and animals). Please wait until it has loaded before proceeding.

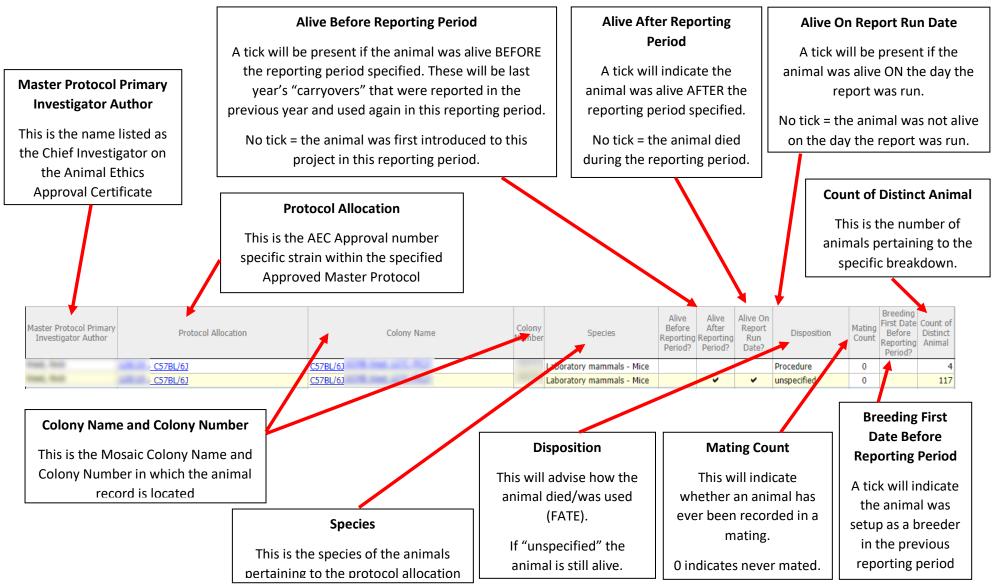


<u>Please note:</u>

The UQ MAR EoYReporting datasets and views have been designed specifically to assist you with obtaining your numbers. By using your own custom, or default views and datasets outside the recommendations may result in incorrect totals.



Understanding your Mosaic Animal Census Report



Version 1.5



Once your report is generated you will have a breakdown of the animals by the Strain allocation attached to each animal. This is then filtered to the specific Colony in which the records are located. Finally the numbers are separated by the "Disposition" attached to each animal and whether they have ever been mated.

You will find various counts assigned to each different "Protocol Allocation", "Colony" location, "Disposition" and "Mating Count". These values will be added to a total when filtered for each requirement on your Animal Ethics Approval Certificate (**Breed** and **Culls** for Breeding Ethics, **Culls** for Experimental Ethics). These steps are broken down in the next section of this document for "Counting your Breeders" and "Counting your Culls".

The "Alive Before/After/On Reporting Period" ticks will help determine your numbers also and should be used in conjunction with the Disposition.

Examples of what you may see and why:

Alive Before Reporting Period?	Alive After Reporting Period?	Alive On Report Run Date?	Disposition	Mating Count	Count of Distinct Animal		These 4 animals were not alive BEFORE the reporting period and therefore were first introduced to the project this reporting period. 4 will be reported in this example.
			Procedure	0	4	×	These 117 animals were not alive REFORE the reporting period and therefore must have been
	~	~	unspecified	0	117		These 117 animals were not alive BEFORE the reporting period and therefore must have been
							introduced WITHIN the reporting year. They will also be included in the count for "animals introduced to the project" during this reporting period. They are also alive AFTER the reporting period and this is supported by the "unspecified" disposition indicating that they are still alive. They will therefore be included in the "carryover" count for this strain for next reporting period.
Alive Before Reporting Period?	Alive After Reporting Period?	Alive On Report Run Date?	Disposition	Mating Count	Count of Distinct Animal	,	All 20 animals were not alive before the reporting period and therefore introduced to the
	~		Deviated septum	0	1		project during this reporting period. 20 animals will be reported in this example.
	~		Due to age	0	10		
	~	~	unspecified	0	9		
Alive Before Reporting Period?	Alive After Reporting Period?	Alive On Report Run Date?	Disposition	Mating Count	Count of Distinct Animal		Please note these 11 animals have a disposition (1 x Deviated Septum, 10 x Due to age). They were alive AFTER the reporting period but have been culled between the end of the reporting period and the date the report was run. This is indicated by a specific disposition and no tick in
	~	\cap	Deviated septum	0	1		the "Alive ON Report Run Date" column.
	~		Due to age	0	10		Although they are now dead they were alive AFTED the reporting period and will therefore be
	>		•				Although they are <u>now</u> dead they were alive AFTER the reporting period and will therefore be included in the "carryover" count for this strain for next reporting period.



Please note you may see counts for animals in UQ Colonies. These animals may have been transferred for use in health screening, training, or part of a TASQ colony. Animals used for training must remain on the Researcher's ethics until time of death. IF the animal was culled for training purposes the animal will be moved onto UQ Training Ethics. If you notice animals have been culled for training but still allocated to your ethics, please contact the relevant Animal Facility to update.

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	Master Protocol Primary Investigator Author		Protocol Allocation	Colony Name		Colony Number	Species	Repo	ore	Alive After Reporting Period?	Alive Or Report Run Date?	Disposition	Mating Count	Count of Distinct Animal
1	1		BREED - GluA1 K868R KI	GluA1 KI BREED			Laboratory mammals - Mice		/			Actioned request	0	9
2			BREED - GluA1 K868R KI	GluA1 KI BREED			Laboratory mammals - Mice					Colony Maintenan	ce 0	9
3			BREED - GluA1 K868R KI	GluA1 KI BREED			Laboratory mammals - Mice			~		Deviated septum	0	1
4			BREED - GluA1 K868R KI	GluA1 KI BREED			Laboratory mammals - Mice		/			Due to age	0	19
5			BREED - GluA1 K868R KI	GluA1 KI BREED			Laboratory mammals - Mice					Due to age	0	26
6			BREED - GluA1 K868R KI	GluA1 KI BREED			Laboratory mammals - Mice			~		Due to age	0	10
7			BREED - GluA1 K868R KI	GluA1 KI BREED			Laboratory mammals - Mice					Excess stock	0	36
8			BREED - GluA1 K868R KI	GluA1 KI BREED			Laboratory mammals - Mice					Found dead	0	3
9	,		BREED - GluA1 K868R KI	GluA1 KI BREED			Laboratory mammals - Mice					Sick	0	2
10			BREED - GluA1 K868R KI	GluA1 KI BREED			Laboratory mammals - Mice			~	~	unspecified	0	9
11	1		BREED - GluA1 K868R KI	Training Mice UQ			Laboratory mammals - Mice		;	~	~	unspecified	0	1
12			BREED- GluA1 K868R KI	GluA1 KI BREED			Laboratory mammals - Mice		7			Colony Maintenan	ce 0	1
13			BREED- GluA1 K868R KI	GluA1 KI BREED			Laboratory mammals - Mice			~	~	unspecified	0	3
				Grand Total										129

This mouse is located in a UQ Training Colony. Researcher Ethics are still attached as the animal is still alive. If the mouse is culled due for Training purposes, UQ Ethics should be applied. If the animal was culled as it was not used for Training, the animal would still be counted on Researcher Ethics as this was last intended purpose/use.



What numbers are required for Reporting?

Research Ethics and Integrity require the following questions to be answered in regards to the Mandatory Annual Reporting:

- The number of "Animals reported under this AEC number in [last reporting period], used again in [this reporting period]."
- The number of "Animals first introduced to this project in [this reporting period]."

Species	Strain	Class	Gender	Animals reported under this AEC number in 2019, used again in 2020	Animals first introduced to this project in 2020
Mice - genetically modified	K5CreERT2 (breed)	Adults	Mix		[
Mice - genetically modified	K5CreERT2 (cull)	Adults	Mix		
Mice - genetically modified	K8CreERT2 (breed)	Adults	Mix		[
Mice - genetically modified	K8CreERT2 (cull)	Adults	Mix		
Mice - genetically modified	MMTV-Cre (breed)	Adults	Mix		
Mice - genetically modified	MMTV-Cre (cull)	Adults	Mix		[
Mice - genetically modified	Piezo1-TdTomato (breed)	Adults	Mix		
Mice - genetically modified	Piezo1-TdTomato (cull)	Adults	Mix		

An animal is defined as "USED" as soon as it comes into the study. If no animals were used during the year, please enter a count of zero (0).

For BREEDING ethics, only animals that have been culled or are currently assigned as a breeder are counted. Any stock that is currently listed in the breeding colony that is not marked for breeding should not counted. These animals are counted once they are:

- assigned either to a breeder status
- assigned to an experimental protocol (and then counted on that protocol); or
- culled before being assigned to another protocol (for example culled as excess stock due to sex/genotype).



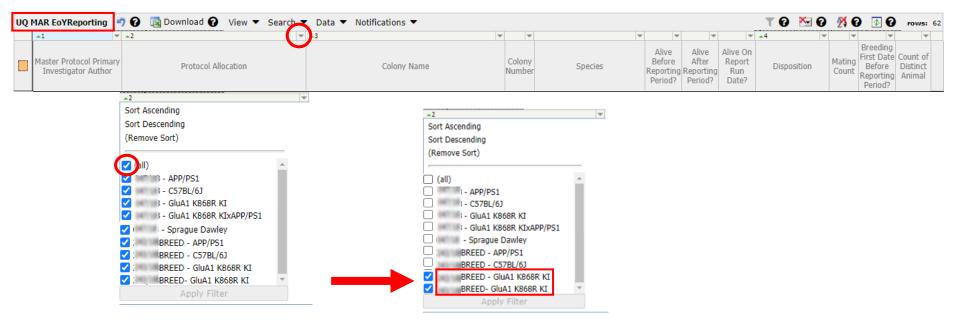
To obtain the numbers of animals that are to be counted under each section of the MAR you will need to filter to each "Protocol Allocation" (the strain listed on your AEC) and then further filter to determine whether the animals were reported in the previous year and used again, or whether they were first introduced to the project during this reporting period.

To assist, the following sections will provide steps to obtaining your "Breed" and "Cull" numbers for BREEDING ethics. The "Cull" numbers step will allow you determine your usage for EXPERIMENTAL ethics. Please be aware that some Experimental ethics also allow breeding so you will need to obtain both.

Counting your Breeders

Once you have loaded the recommended "UQ MAR EoYReporting" Dataset and View, your next step is to select the Protocol Allocation in which you wish to determine your numbers.

Click on the dropdown for "Protocol Allocation", untick "(all)", and then select the Protocol Allocation (there may be multiples due to historical import data during database migration that in some cases cannot be merged or deleted – Please ensure these are ALL ticked if pertaining to the same strain).





Filter to only your Breeders by clicking on the "Mating Count" drop down, deselect "0" and click "Apply Filter".

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	▲1 ▼ Master Protocol Primary Investigator Author	▲2 Protocol Allocation	¥	*3 Colony Name	Colony Number	Species	Alive Before Reporting Period?	Alive After Reporting Period?	Alive On Report		sposition	Mating Count	9 Poforo	te Count of Distinct ng Animal
	Values of "0" for a mating count indicate animals that have never been bred or set up in a mating. By deselecting "0" from the Mating count you will be shown the total count of ALL Breeders for this allocation (both alive and dead).												1	

Please note that if the only option you have is "0", you do not have any Breeders to report. On the MAR form please record "0".

You may also have counts of 1 or more – please ensure to select ALL values except 0 (if available).

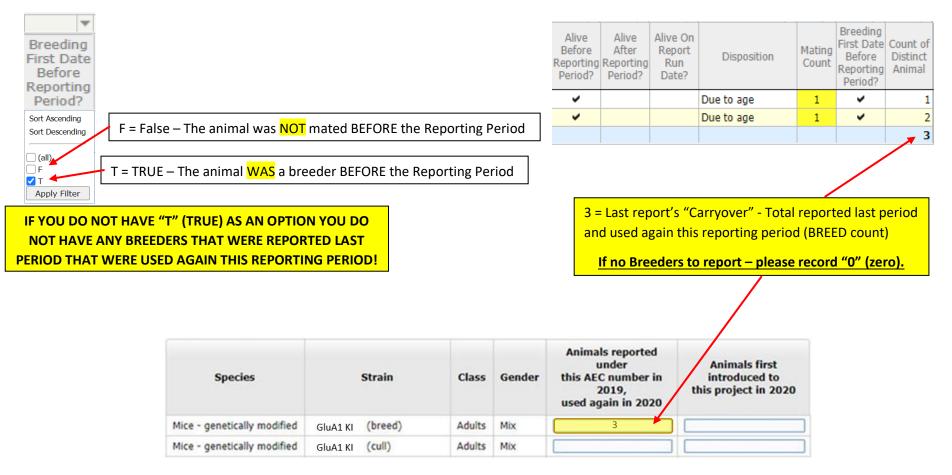
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	▲ 1 ▼	<u>~2</u>	-	^ 3		*	Ŧ	v		.	Ŧ	<u>4</u>		W	T
	Master Protocol Primary Investigator Author		Protocol Allocation		Colony Name		Colony Number	Species	Alive Before Reporting Period?	Alive After Reporting Period?	Alive On Report Run Date?	Disposition	Mating Count	Breeding First Date Before Reporting Period?	e Count of Distinct g Animal
1		BRE	ED - GluA1 K868R KI	GluA1 KI BREED				Laboratory mammals - Mice				Breeder (Dystocia)	1		1
2		BRE	ED - GluA1 K868R KI	GluA1 KI BREED				Laboratory mammals - Mice	~			Due to age	1	~	1
3		BRE	ED - GluA1 K868R KI	GluA1 KI BREED				Laboratory mammals - Mice	~			Due to age	1	~	2
4		BRE	ED - GluA1 K868R KI	GluA1 KI BREED				Laboratory mammals - Mice				Due to age	1		1
5		BRE	ED - GluA1 K868R KI	GluA1 KI BREED				Laboratory mammals - Mice		~	~	unspecified	1		2
6		BRE	ED - GluA1 K868R KI	GluA1 KI BREED				Laboratory mammals - Mice		~	~	unspecified	1		2
7		BR	ED - GluA1 K868R KI	GluA1 KI BREED				Laboratory mammals - Mice		~	~	unspecified	1		2
				Grand Total											11

In this example there are a total of 11 Breeders counted on this "Protocol Allocation" for this strain.



How many Breeders were reported last reporting period, used again this reporting period?

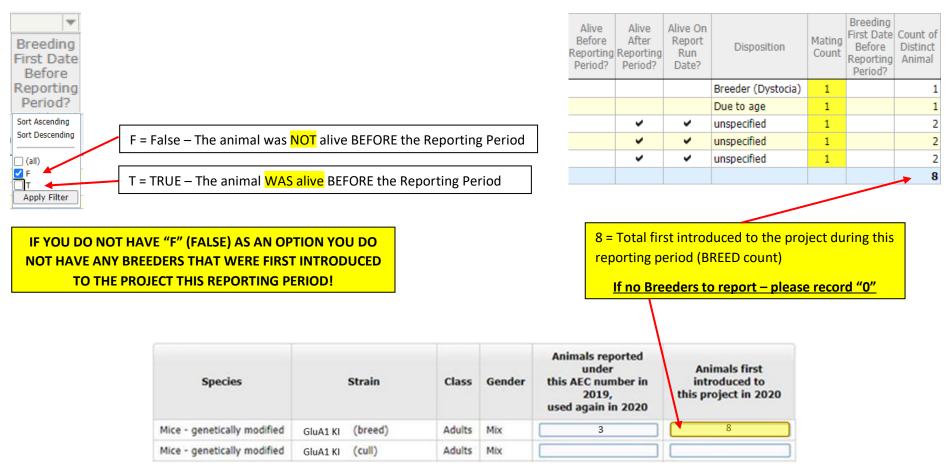
To determine the number of Breeders reported last reporting period and used again during this reporting period, you will need to click on the dropdown for "Breeding First Date Before Reporting Period" and untick "F" (FALSE). This will leave "T" (TRUE) selected and will result in only showing animals that were set up as a breeder BEFORE the current reporting period, thus will have been reported before and used again this reporting period. If you do not have "T" (TRUE) as an option to select, you do not have any numbers that require reporting for this section – please record "0".





How many Breeders were first introduced to the project this reporting period?

To determine the number of Breeders that were first introduced to the project this reporting period, you will need to click on the dropdown for "Breeding First Date Before Reporting Period"" and untick "T" (TRUE). This will leave "F" (False) selected and will show you all Breeders introduced during this reporting period. Please note that if you do not have "F" (False) as an option to select, you do not have any number that require reporting for this section – please record "0".

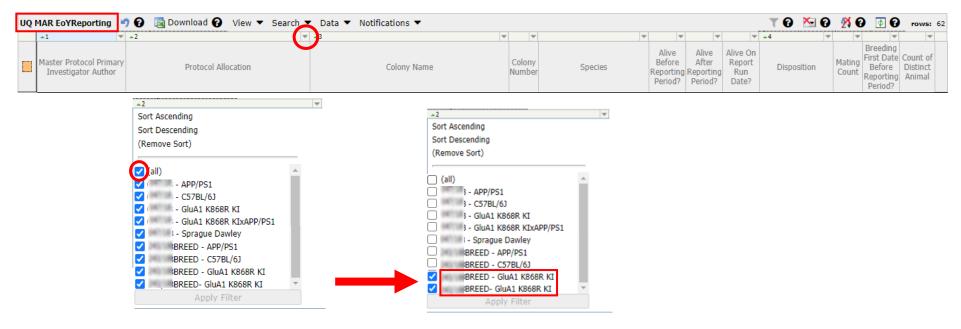




Counting your CULLS (BREED VS EXPERIMENTAL ETHICS)

Please note there are slight variances in workflows to determine your Counts between culls on a Breeding Ethics and usage numbers on Experimental Ethics. When an animal enters a project (Experimental) it MUST be counted regardless of whether it is alive or dead.

Click on the dropdown for "Protocol Allocation", untick "(all)", and then select the Protocol Allocation (there may be multiples due to historical import data during database migration that in some cases cannot be merged or deleted - Please ensure these are ALL ticked if pertaining to the same strain).



Click on the "Mating Count" drop down, untick "(all)", and select "0". Click "Apply Filter".





Culls within a Breeding Ethics

For a Breeding Ethics cull counts are only reported once the animal is dead. There will never be animals that had been reported the previous year and then used again in this reporting period. As such, your culls count for "Animals reported last reporting period and used again this period will be zero (0). Please place "0" in the form for this category.

Species	Strain	Class	Gender	Animals reported under this AEC number in 2019, used again in 2020	Animals first introduced to this project in 2020
Mice - genetically modified	GluA1 KI (breed)	Adults	Mix	3	8
Mice - genetically modified	GluA1 KI (cull)	Adults	Mix	0	(

Please note that some Experimental Ethics allow breeding. In these scenarios you MUST report all "stock" animals as they will not be transferred to a secondary ethics. As such, please refer to page 18 of this document "Previously reported Experimental Ethics Counts" to obtain the number of animals reported last reporting period and used again in this period.

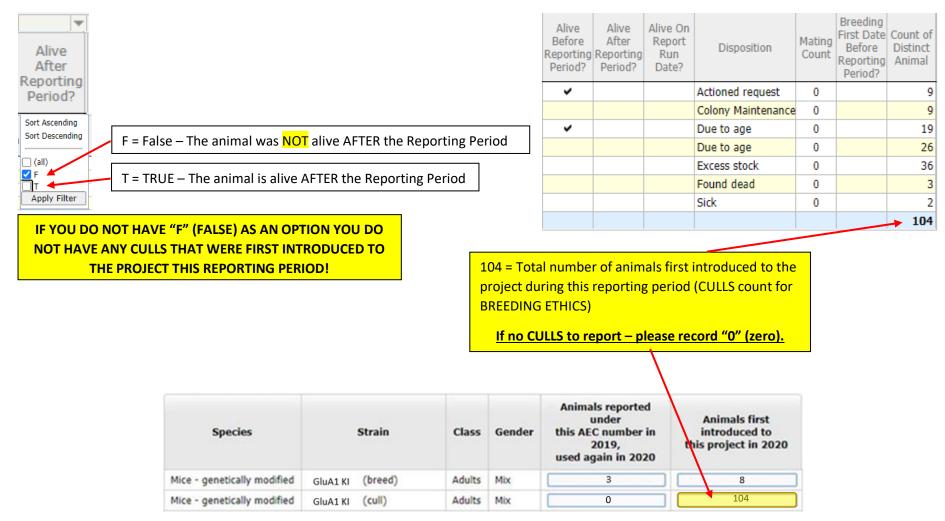
How many CULLS were first introduced to the BREEDING project this reporting period?

Please remember that for BREEDING ethics, only animals that have been culled or are currently assigned as a breeder are counted. Any stock that is currently listed in the breeding colony that is not marked for breeding should not counted. These animals are counted once they are:

- assigned either to a breeder status
- assigned to an experimental protocol (and then counted on that protocol); or
- culled before being assigned to another protocol (for example culled as excess stock due to sex/genotype).



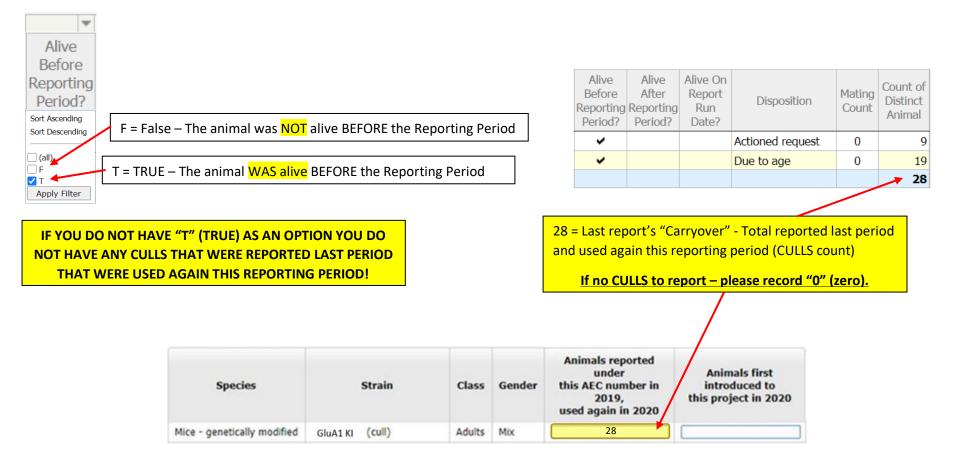
To determine the number of CULLS that were first introduced to the project this reporting period, you will need to click on the dropdown for "Alive AFTER Reporting Period" and untick "T" (TRUE). This will leave "F" (False) selected and will show you all animals culled this reporting period. If you do not have "F" (False) as an option to select, you do not have any number that require reporting for this section – please record "0".





Previously reported Experimental Ethics Counts (standard non-breeding experimental)

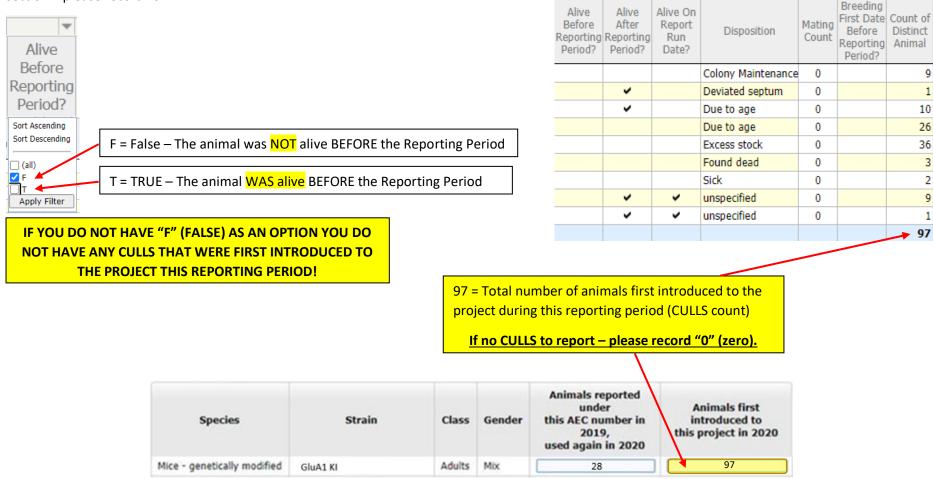
All animals that enter an Experimental project must be counted. To determine the count of animals reported last reporting period and used again this reporting period, you will need to click on the dropdown for "Alive **<u>BEFORE</u>** Reporting Period" and untick "F" (FALSE). This will leave "T" (TRUE) selected and will result in only showing animals that were ALIVE last reporting period, reported before and used again this reporting period. If you do not have "T" (TRUE) as an option to select, you do not have any numbers that require reporting for this section – please record "0".





First introduced Experimental Ethics Counts

To determine the number of animals that were first introduced to the project this reporting period, you will need to click on the dropdown for "Alive **<u>BEFORE</u>** Reporting Period" and untick "T" (TRUE). This will leave "F" (False) selected and will show you all animals introduced this reporting period and may include animals that are still currently alive. If you do not have "F" (False) as an option to select, you do not have any number that require reporting for this section – please record "O".





Considerations

Reporting on Age and Genotype Breakdowns

This report will supply Researchers with usage numbers pertaining to how an animal died (Breed/Cull numbers, Animals used for Procedure). It will NOT generate a breakdown of AGES or GENOTYPES.

Please complete these workflows via the Animal Census Report **FIRST** to obtain your BREED and CULL numbers and then refer to the <u>"Interim</u> Researcher Guide to Protocol Allocations and Reporting" via the Protocol Worksheet for a workflow to obtain specific age and genotype breakdowns.

If your numbers for a strain do not match (total number obtained via this Animal Census versus Currently Assigned via the Protocol Worksheet) you may have animals that are/were currently housed within UQBR Colonies (Training/Sentinel/TASQ etc). These animals still need to be reported. Please contact the relevant Animal Facility to discuss this further.

Mosaic has a sensitive quality control standard that prevents back-dating death dates. To allow records to be updated correctly, some animals may have the correct death date shown in the "Daily Obs" Column. Please check for these on your spreadsheet.

Rodent Age Classification

Embryo	E0.5 (Plug date) to Pre-birth	E0.5 (Plug date) to Pre-birth		
Neonate	P0.5 to P9	Future classification for 'Juvenile' will		
Juvenile	P10 to P20	incorporate the Neonate age range		
Adult	P21 onwards			

Help

For queries or discrepancies relating to the generated numbers for each Protocol Allocation recorded against an animal, please contact the relevant Animal House and supply them with the specific colony and animal details for further investigation. The Database Administrator cannot assist in these matters.

For queries relating to specific wording or definitions within the MAR reporting forms, please contact the Animal Ethics Committee relevant to your project.

For queries on TOTAL approved allowed counts, please send details of the concern and a recent Approval Certificate to the Database Administrator at: br.database@ug.edu.au