LabCollector

"Your Laboratory management solution"

User's guide

Aquarium

Version 2.0 – April 2019

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1- INTRODUCTION

Thank you for choosing one of AgileBio's solutions for the management of your lab. The **Aquarium add-on** is a web-based solution which allows to sequentially populating plates or boxes from single vial tubes or with full plates creating associated records in the same time. Just read tube/vial barcode to automatically insert in a new plate/box map.

The **Aquarium** add-on provided by AgileBio is suitable for research projects, technical platform service activities and company projects.

Aquarium add-on can be fully integrated with LabCollector, the LIMS we developed for life science research labs, Pharma and biotech industries.

LabCollector is a copyrighted product from AgileBio**.**

2- GETTING STARTED

You can get the **Aquarium add-on** by downloading from www.labcollector.com. LabCollector software has to be installed first as it contains the framework. LabCollector support documents for installation are available on our website. **Aquarium add-on** can be installed on any operating system (Windows, MacOS X and Linux).

It is a best practice to make a backup of LabCollector prior to any installation, update or upgrade.

A changelog is included in the download package. It is also available by navigating the browser URL on LabCollector at */aquarium/CHANGELOG.txt.

1/Manual mode:

Unzip and paste **Aquarium** add-on folder in the extra_modules folder of your LabCollector installation.
As an example, for Windows, it would look like:

C:\Programs\AgileBio\LabCollector\www\lab\extra_modules\aquarium

Open LabCollector, the Aquarium add-on module is now activated. Click on the module, a confirmation screen will help you to proceed with the installation.

2/Automatic mode from LabCollector interface:

You can also use the LabCollector Menu

Admin > Setup > Upload/Add Addons > Upload Addon ZIP > Add Addon

Return to LabCollector - the **Aquarium add-on** module is now activated. Click on the module to finish the installation.

3/Cloud hosted:

If your instance of LabCollector is cloud hosted with AgileBio, AgileBio staff may perform the installation and license update for you. Contact your sales rep with any questions about the process.

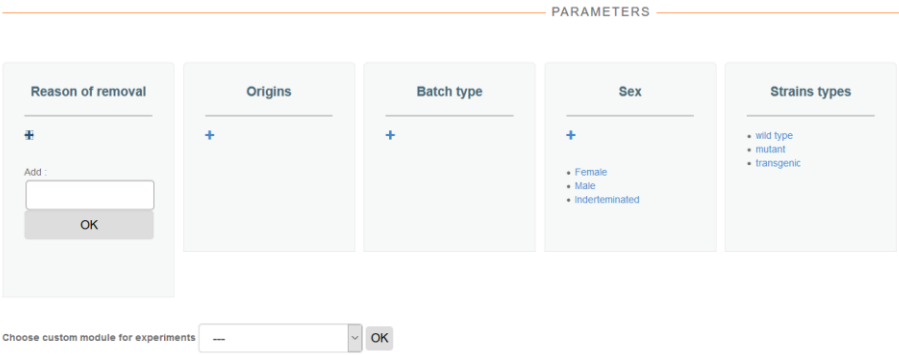
The add-on will remain in a 30 day free trial mode until you save the final license **Admin > Setup > License**. To obtain a valid license, you have to copy and send the computer activation key to AgileBio. You may also use the client area of the labcollector.com website to obtain or update a license.

3- SETUP

The Aquarium add-on is suitable to work with different species and different lab configurations. In this section, you will see the different options that can be configured to fit your needs.

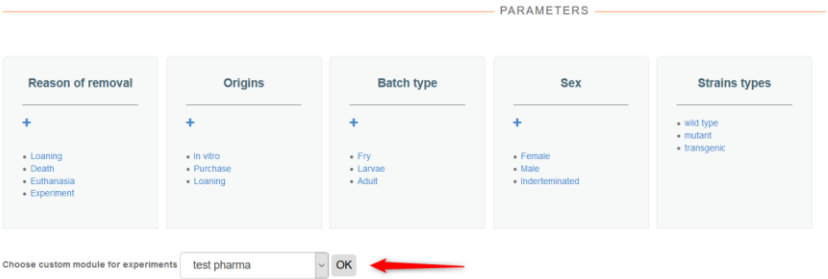
3-1. Parameter settings

Through the menu **Settings > Parameters**, five parameters can be setup. Each time, click on + to add values. To edit a value, click on the value name and save.



1. **Reason of removal**. Available when you remove an animal from a tank.
2. **Origins**. Available in Entry form when you add an animal in a tank.
3. **Batch type**. Available in Entry form when you add an animal in a tank. Compatibility rules can be applied to mix different batches in a tank.

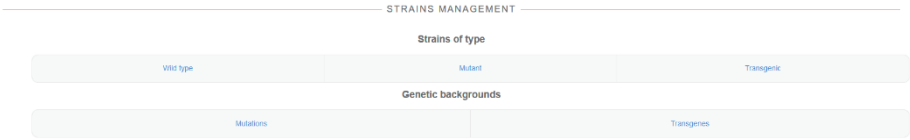
4. **Sex**. Data are already available, you can modify them. Available in Entry form when you add an animal in a tank.
5. **Strains types**. Only modification is allowed here. These values are used in the Strain Management section.



If you want to record your experiment in a custom module (See KB-75), select this module in the select list and click on OK to save.

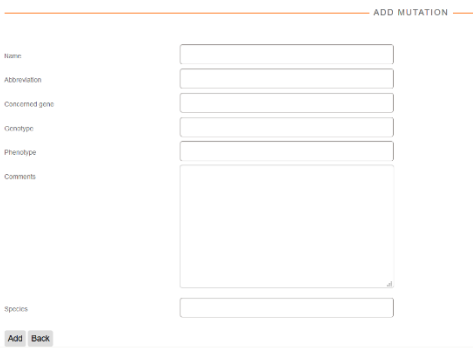
3-2. Strains management

Through the menu **Settings > Strains management**, you can design the different strains you work with as well as the genetic backgrounds.



3-2-1. Genetic backgrounds

In this section, you need to define mutations and transgenes if you work with these kinds of parameters.
To create a mutation, click on **Mutations** then Add Mutation on the top right.
A form opens; fill in this form and click on Add. Once created, you can modify or delete the mutation.



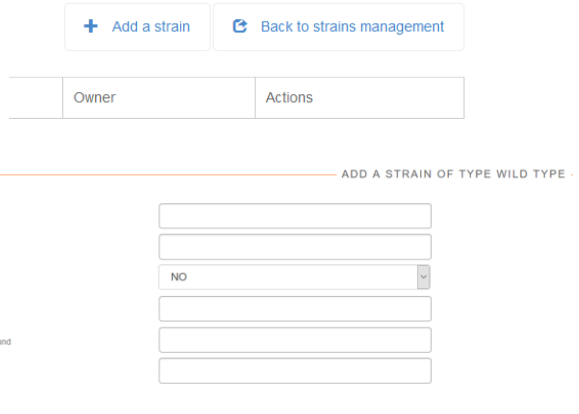
The same process needs to be followed for the transgenes.

3-2-2. Strains of type

You can create as many strains as you want in the following three categories

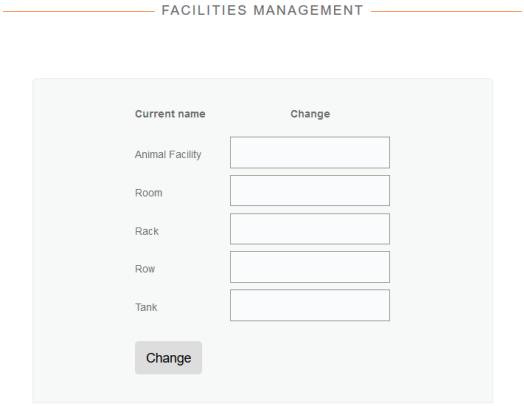
1. Wild type
2. Mutant
3. Transgenic

For each, you need to click on **Add a strain** on the top right. A form opens and you just need to fill in and click on Add.



3-3. Facility management

The Aquarium add-on is based on a tree view to help you to reproduce your laboratory setup.
To help you, you can rename the default location through the menu **Settings > Facility naming.** Just add a new name in the Change column and click on **Change**.



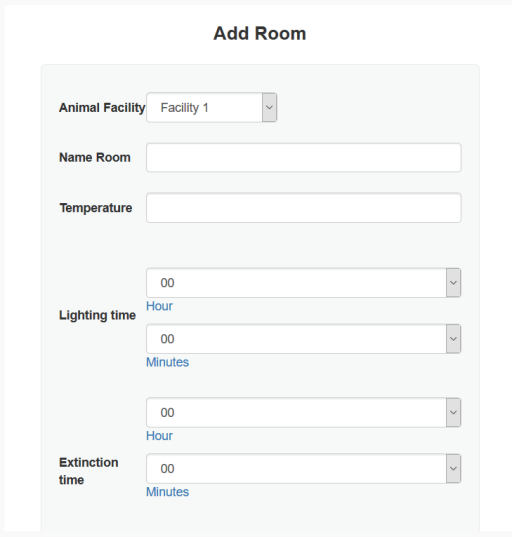
You can now create up to 5 different locations: facility, rooms, racks, rows, and tanks. Rack and row levels can be ignored.

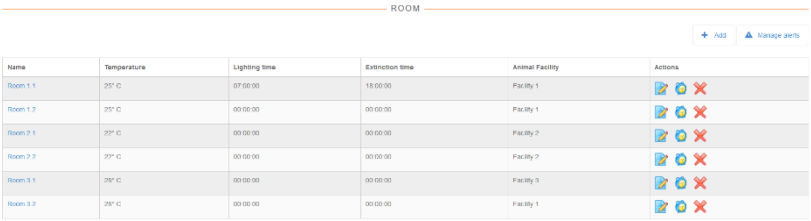
3-3-1. Facility

Through the menu **Settings > Animal Facility**, click on **Add** on the top right then fill out the form. Facility can then be modified, deleted or alerts ( ) can be added (See section 3-4).

3-3-2. Room

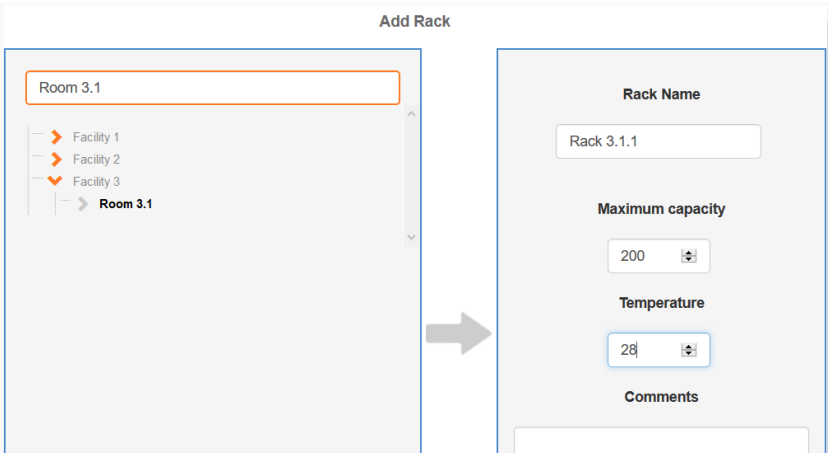
Through the menu **Settings > Room**, click on **Add** on the top right and then fill out the form. Room can then be modified, deleted or alerts ( ) can be added (See section 3-4).
By default the temperature is in °C.





3-3-3. Rack

The rack level is not mandatory.
Through the menu **Settings > Rack**, click on **Add** on the top right then fill out the form.
Rack can then be modified, deleted or alerts ( ) can be added (See section 3-4).

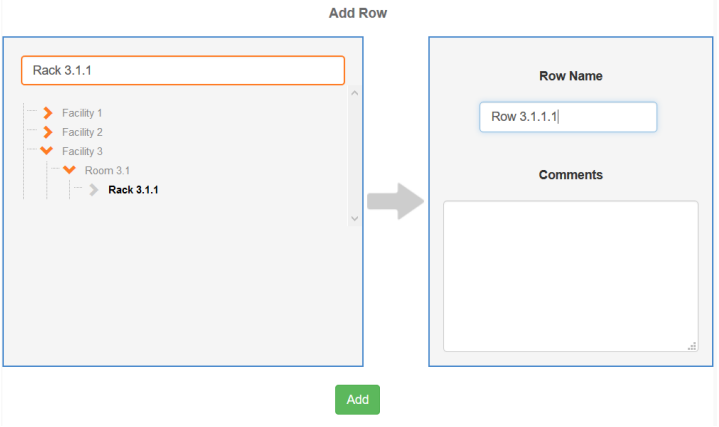


First select the room in the tree on the left, and fill out the form on the right panel and click on **Add**. Temperature is in °C by default. The maximum capacity creates a blocking action in adding or transferring animals.

3-3-4. Row

The row level is not mandatory.

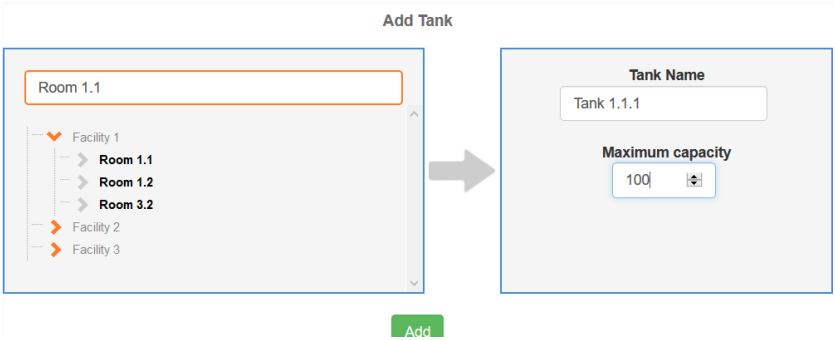
Through the menu **Settings > Row**, click on **Add** on the top right then fill out the form. Row can then be modified, deleted or alerts ( ) can be added (See section 3-4).



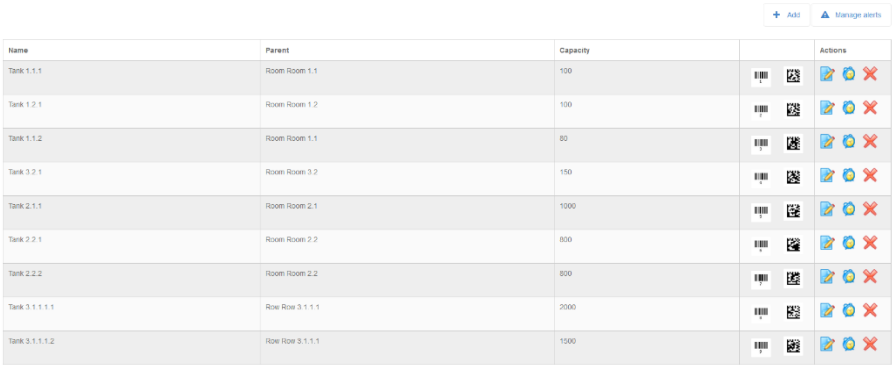
First select the rack in the tree on the left, and fill out the form on the right panel. Click on **Add** to validate.

3-3-5. Tank

The tank level is the last level in which you will manage entry, removal and other actions on animals.
Through the menu **Settings > Tank**, click on **Add** on the top right then fill out the form. Tank can then be modified, deleted or alerts ( ) can be added (See section 3-4).



First, select the Room or the Row in the tree on the left, and fill out the form on the right panel and click on **Add**. The maximum capacity creates a blocking action in adding or transferring animals. Capacity of the different tanks inside a rack cannot exceed the maximum capacity of the rack.

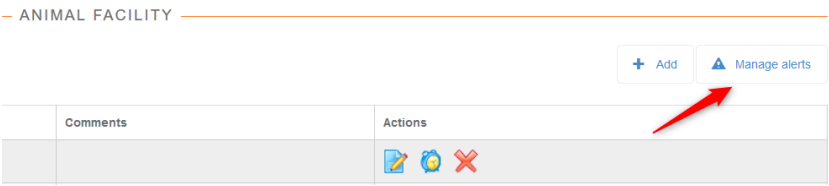


Barcodes for tanks can be printed from this page.

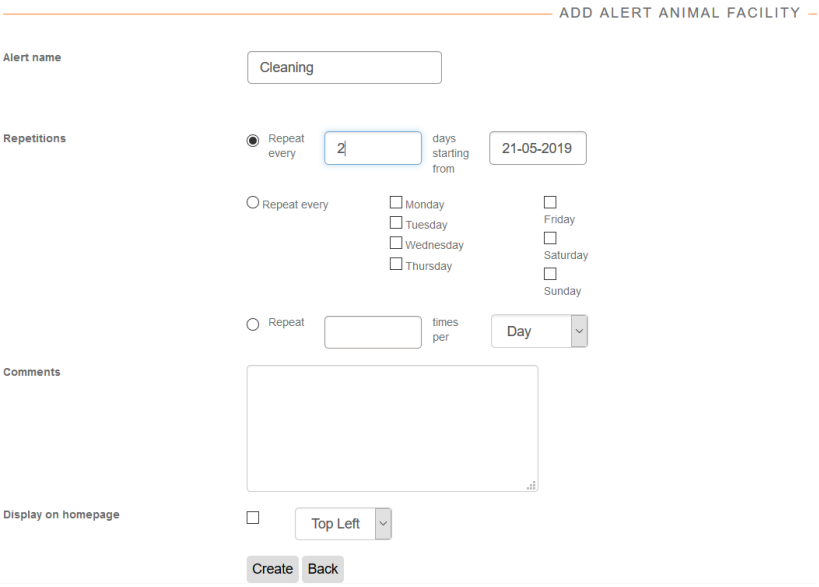
3-4. Alerts

Alerts can be created on each location.
Through the menu **Settings > Animal facility, Room, Rack, Row or Tank**, you can create alerts. Then you need to assign these alerts to the location.
The example below is based on Animal Facility.

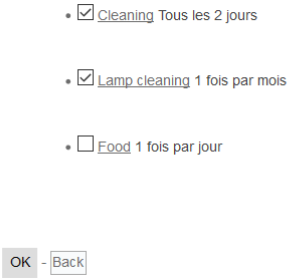
On the top right, click on **Manage alerts** then **Add alert**.



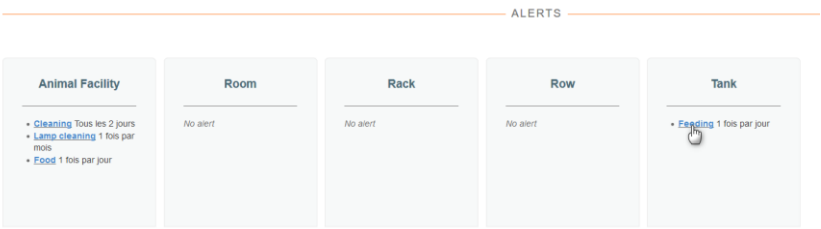
A form opens. You need to give a name to the alert, choose the option of repetition, comments if needed and select the option of display.



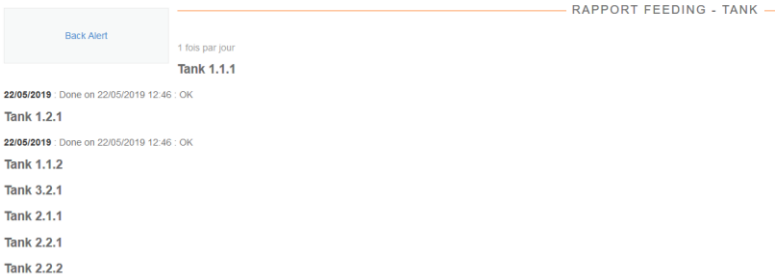
Once the alert is created, you need to assign the alert to the facility using the icon on the facility page. Then, you check the alerts you want for each location.



To declare the action notified by the alert (e.g. cleaning, feeding…), just go through **Feedings > Alerts**, then click on the alert you want to notify.



You will then be able to validate each item and leave a comment.
The list of all the performed actions is available under **Report for this alert**.

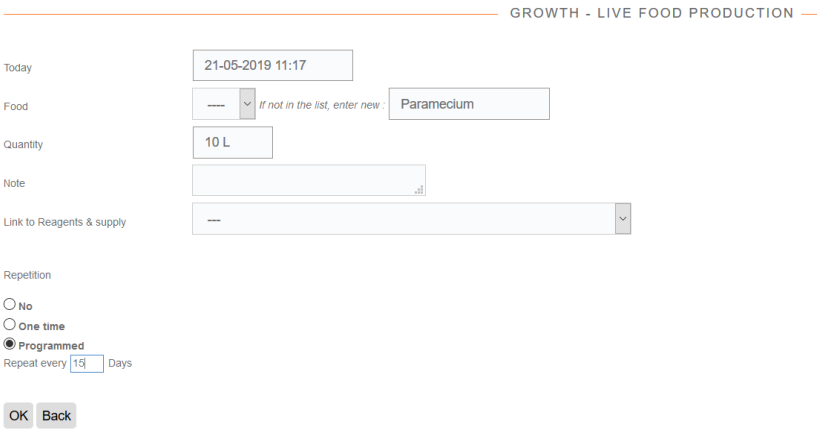


4- FEEDINGS

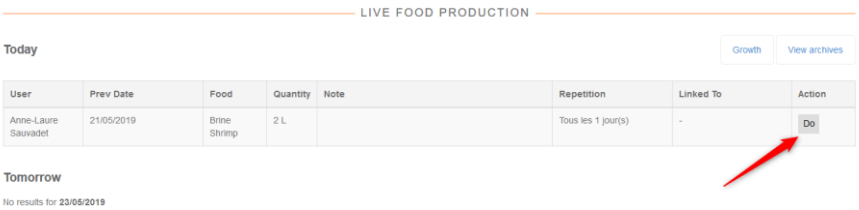
With the **Aquarium add-on**, feedings can also be followed using two possibilities.

4-1. Alive food production

The goal here is to schedule growth for alive food production.
So first, you need to create the action of growth clicking on the button **Growth** on the top right of the page **Feedings > Alive food production**. Fill the form choosing the type of food and the repetition you need. You can also create a link with one item in the Reagent & Supplies module of LabCollector.



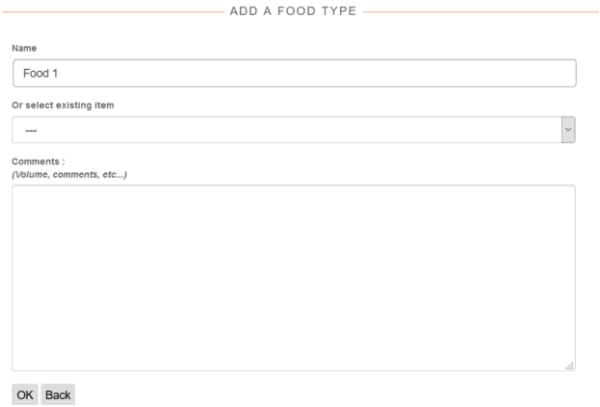
All the production will be filtered by date (Today/Tomorrow). On the Today production, you will be able to declare this production using the **Do** button, and then create the next production.



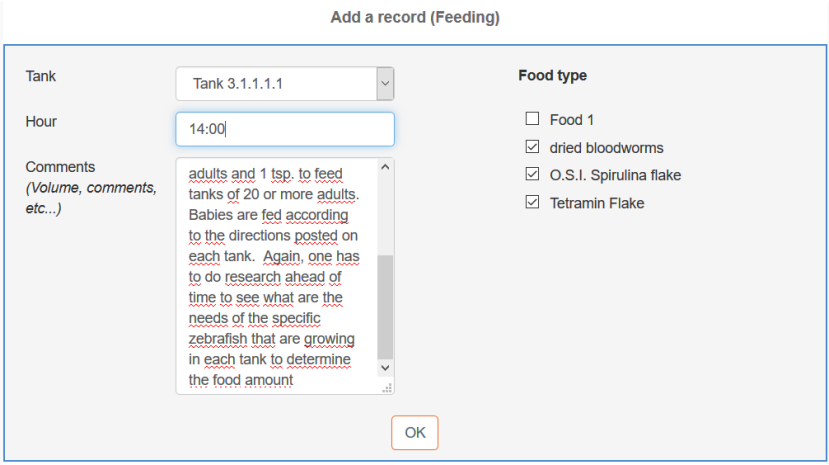
All the productions will be listed under **View archives**.

4-2. Feedings

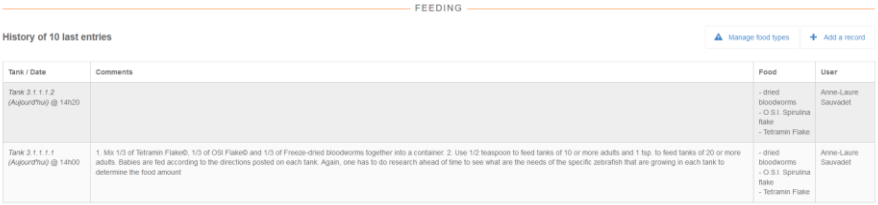
In this section, you can record the feedings in each tank.
First, you have to define the food type. Through the menu **Feedings > Feedings**, click on **Add a food type** on the top right then fill in the form. You can just give a name and a comment to the food type or select item in Reagent & Supplies module of LabCollector.



Once all the food types are created, you can record all the feeding actions for each tank through the menu **Feedings > Feedings**, using **Add a record**.
Fill in the form choosing the right tank, the hour, comments if you want and one or multiple the food types.



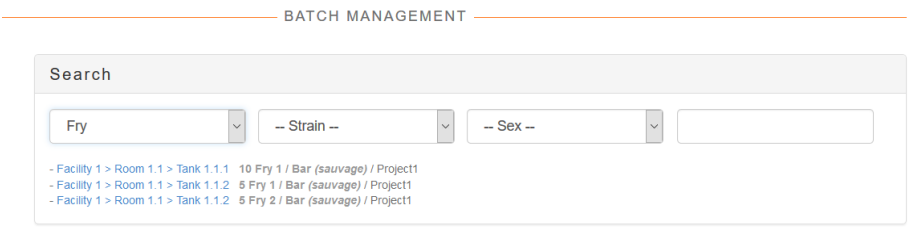
All will be listed on the Feeding page.

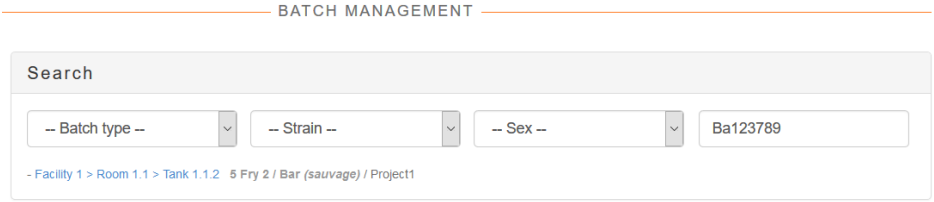


If you created alerts for feeding, you can then follow the procedure in the Alerts section.

5- BATCH MANAGEMENT

Once you set up the **Aquarium** add-on, you can then track all your flows on animals.
Through **Batch management** menu, you have access to a search bar by default where you can filter by batch type, strain or sex. You can also search for specific text.



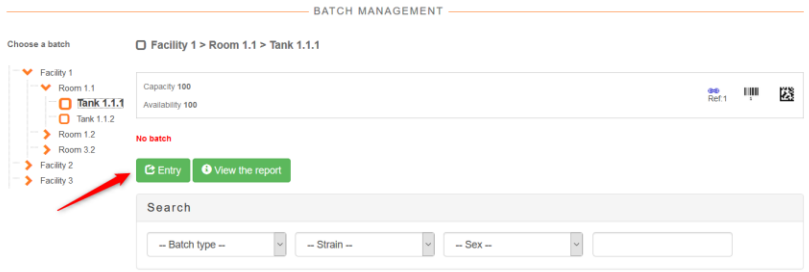


Click on the blue link to be directly transferred to the right tank.

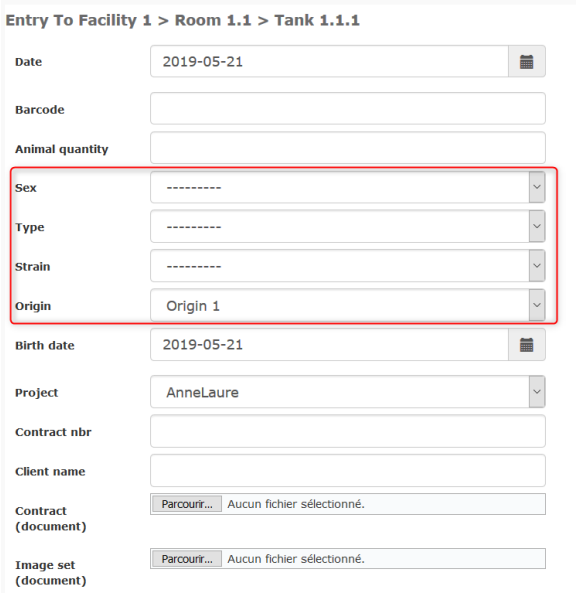
Otherwise, you can just navigate in the tree on the right.

5-1. Entry and removal

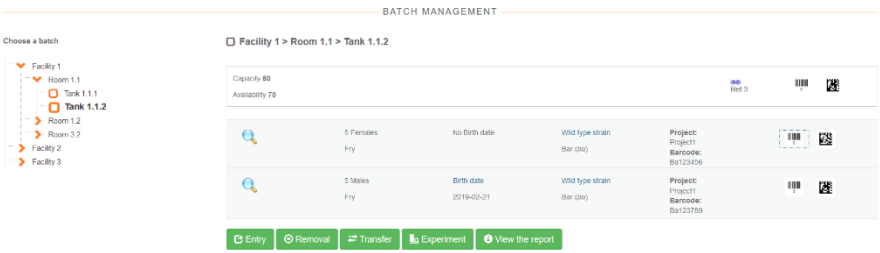
The first action to perform is to create a batch entry.
Click on Entry on the tank page and fill out the form. On this page, you can see capacity and availability based on the maximum capacity you set up creating the tank and rack.
You also have access to the tank barcode and URL.



The form contains default - Sex, Type, Strain and Origin - that are connected to the options you set up (see section 3-1). The field Project is linked to the project code in LabCollector.



Once you have at least one batch in a tank, you can access other actions.



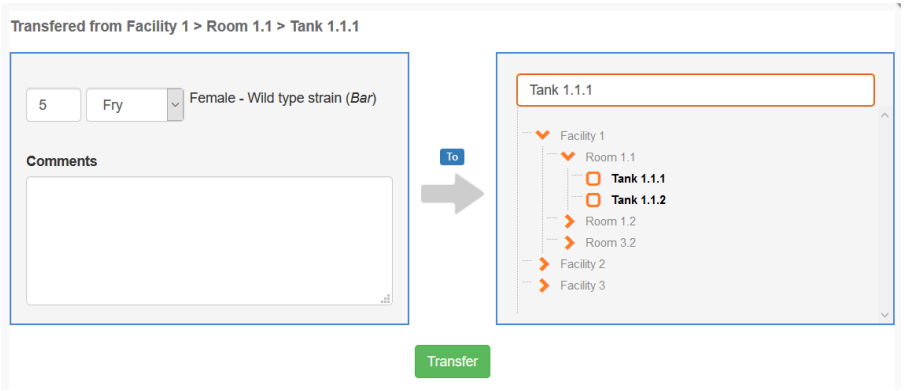
Batches can be removed using the **Removal** button. The form asks for the number of entities you want to remove and the reason for removal (see section 3-1).

Each action is reported (for more details, see section 5-4).

5-2. Transfer

The transfer of an entity can also be performed. To do it, click on **Transfer** button and follow the steps:

1. Indicate the number of the entity to transfer
2. Indicate the batch type if you have multiple batch types in your tank. You will have one line per sex and/or strain.
3. On the right, select in the tree the new tank where you want to transfer the batch to.
4. Click on Transfer.



5-3. Experiment

If you select a custom module in the parameters (see section 3-1), by clicking on the **Experiment** button, you can define the details of your experiment relative to this tank.

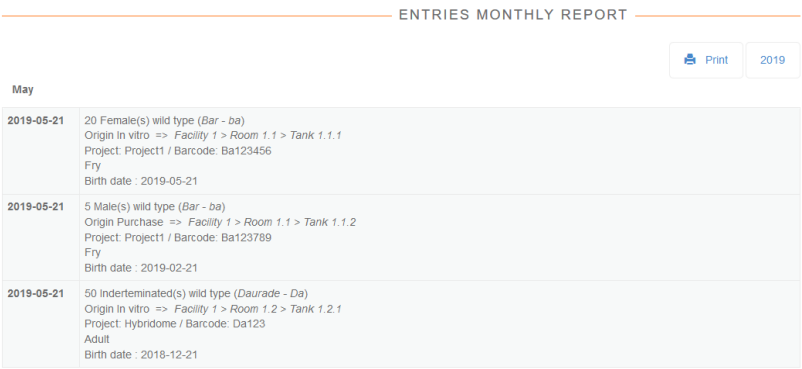
Custom modules can be designed as needed (see KB-75) and records can then be linked to the **Electronic Lab Notebook** add-on.

5-4. Reporting

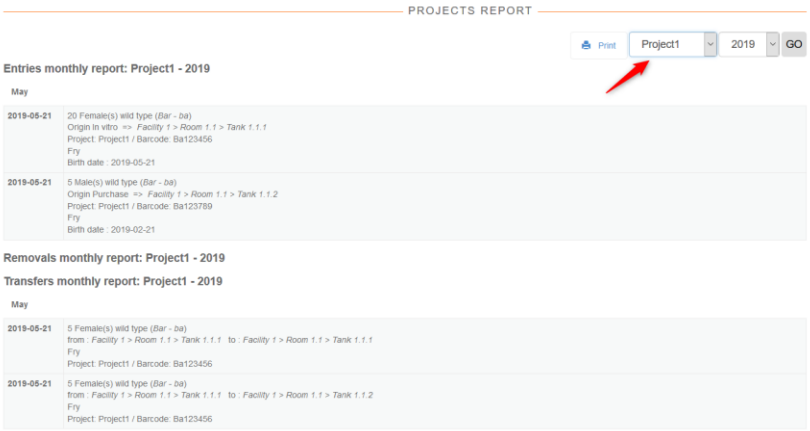
Reports are accessible from the menu **Reports** or when you are on a tank using the **View the report** button.

Reports can be executed based on:

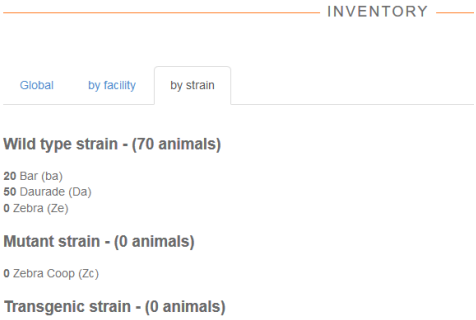
1. Entries



2. Removals
3. Transfers
4. Experiments
5. Projects



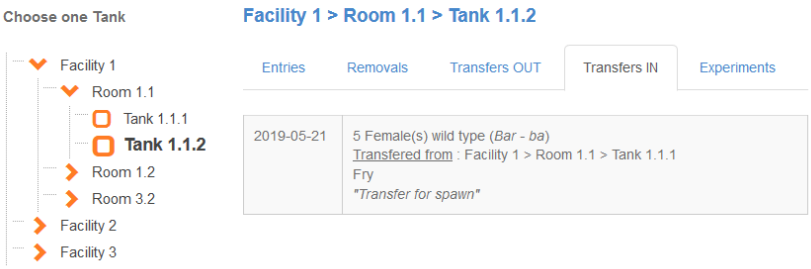
6. Inventory (global, by facility or by strain)



7. Tank

When you are in the batch management tool, in a tank, you can navigate between the different reports.

REPORT BY TANK



Under the menu **Reports** you can print the report and have a filter by month and year.

6- UPGRADING AND UPDATING

To update or upgrade the **Aquarium Add-on** module, just download it from our website (www.labcollector.com). Then, unzip the folder and paste files in the following folder:

e.g. on a Windows setup:

```
Programs\AgileBio\LabCollector\www\lab\extra_modules\aquarium
```

As a general suggestion, we always recommend making a backup prior to performing an upgrade or update.

If your instance of LabCollector is cloud hosted with AgileBio, contact a sales or support representative to perform the update.

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