Prepared on 19/02/2019 by Andrew Arnott.

Living Lab project summary – Cold Storage Sustainability internship

Description of the paper

This paper describes a study into cold storage sustainability at a selection of sites across the University of Edinburgh. The study was conducted by an intern over 8 weeks in June and July 2018.

Research question

Observe current freezer management practices, undertake maintenance tasks and make recommendations for improvements

Objectives

1. Undertake various basic freezer maintenance tasks: defrosting, filter cleaning, ensuring enough space around them
2. Generate a contents inventory for each freezer
3. Present inventory to lab contacts in order to identify any redundant contents which can be removed to free-up space.

Findings and recommendations

This project has helped identify how life science research laboratories across the University of Edinburgh are utilizing their cold storage equipment like ULTs.

As many of the observations and issues were common to all of the labs investigated, it may be worthwhile to undertake a wide-spread communications campaign, including face-to-face workshops to highlight the issues to lab staff and the actions they can take.

It is recommended that the following three main actions be implemented:

- Establish a schedule for defrosting freezers once per year and cleaning filters/fins twice per year.
- Implement a procedure to standardise recording and labelling of samples, including use of printed sticky labels.
- Invest in racks and adequate containers to store samples inside the freezers.

Additional actions which will contribute to improved best practice are ensuring physical maintenance of the freezers is carried out properly and regularly cleaning freezer rooms.