Achieving Silver

Author	Role	Version	Issue date
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1. Purpose

The purpose of this document is to provide guidance on answering the questions in the LEAF silver award criteria. Each section of this document explains what should be considered when answering the questions. If any questions are not suitable for your area than 'Not applicable' along with an explanation can be written in the answer box. Any sustainable activities carried out in your area that are not captured by the framework can be captured in the 'Open Initiatives' section at the end of the questions.

2. Scope

This guide is for laboratory users who have been nominated to carry out LEAF in their area and are filling out the criteria for the silver award.

3. Procedure

3.1. Waste (Q17-18)

- The laboratory has addressed its use of consumables and implemented measures to reduce use – particularly targeting single use plastics.
- There is <10% contamination of recycling in clinical waste bins.
- **Discuss how your laboratory has tried to reduce consumable use, evidence that laboratory users are aware about where to dispose of waste.**

3.2. People (Q19)

- The laboratory has communicated with other groups about sustainable practises.
- **This can take place in a number of formats such as laboratory meetings and departmental meetings.**

3.3. Purchasing (Q20)

- The laboratory makes use of schemes offered by suppliers which increase reuse and recycling and reduce waste.
- **i.e. Tip box recycling, packaging return, glass Winchester recycling.**

3.4. Equipment (Q21-24)

- Cold storage is well maintained – the seals on freezers are regularly checked and the freezers are regularly defrosted. Unwanted samples are removed from fridges/freezers and LN2.
- Autoclaves, washers and other equipment that permits batching are only run when full.
- Booking systems are available for communal equipment.
- Fridges and freezers have their temperature raised and ovens have their temperature lowered where feasible. This can apply to other temperature-controlled equipment.

3.5. IT (Q25)

- Critical data is backed up – reducing the need for repeat experiments.

3.6. Sample and Chemical management (Q26-27)

- Procedures for equipment breakdown are in place – freezer temperature monitoring, back up storage, equipment maintenance plans.
- The 12 principles of green chemistry are considered when planning experiments.
- **Green chemistry will not be applicable to all but if hazardous chemicals are used has a safer alternative been considered? Are users not making up excess chemicals when they don't need them?**

3.7. Research quality (Q28-29)

- Laboratories are aware of the core facilities available and they are used if suitable.
- Negative results are discussed in laboratory meetings.

3.8. Ventilation (Q30-31)

- Fume cupboards are not used for extended storage and the airflow is not blocked.
- Fume cupboard sash is lowered, and safety cabinets switched off 80% of time when not in use.

3.9. Water (Q32)

- Sustainable water is communicated – lab users know what levels of purity are available and what is suitable for their application.
- The lab avoids the unnecessary running of taps.

3.10. Teaching (Q33)

- An awareness of resource use and associated environmental impacts is incorporated into practical laboratory learning and teaching**.** Where there is no teaching input 'no teaching'.

4. Changes to the procedure

Version	Reason for change	Date
1.0		November 2023
2.0	Change to purpose and scope	January 2024