

# **Seabird Recovery Project Co-design workshops November 2025**

## **Food waste management**

### **Summary**

Attendees from all three islands were unanimous in identifying the dehydrator as the preferred technology, and would host the pilot.

Issues were raised in relation to the pilot project and to the post-pilot / Seabird Recovery Project implementation phase. These considerations, summarised below, apply irrespective of the host island. Specific questions were also raised. Many of these are technical questions related to the dehydrator and have been addressed by the manufacturer, as set out below.

### **Considerations for food waste pilot**

- *The dehydrator:*
  - Single / small dehydrator may not meet peak demand
  - Two dehydrators would provide resilience to failure
- *Management:*
  - Need to agree any subsidy arrangements and responsibility for maintenance / repairs during pilot
  - Need a mechanism for regular discussions with operator and residents to learn from the pilot, and to consider adjustments where feasible and within pilot budget.
- *Location and waste storage:*
  - Need to allow sufficient space and secure food waste storage containers in case of failure / excess demand
  - Need to ensure sufficient, watertight storage of output to enable secure storage while waiting for onward boating
  - A water outlet or tanking of (clean) waste water will be required
  - Water supply will likely be necessary to clean containers (particularly if collection aggregates domestic waste into bins for transport to the waste site)
  - Need mechanism to deal with bones / shells
- *Other considerations:*
  - Need to decide if output to be kept on island (requiring composting process that does not result in wet powder), or shipped to St Mary's (requiring container, storage and shipping arrangements)

## **Considerations for SRP budget and activities (post-pilot)**

- Upgrades to waste sites (or at newly identified sites) may be required to allow for access, storage (of waste input during machine failure, or output prior to onward boating), electricity, water supply (for container cleaning) and drainage (or tanking).
- Need to plan to reflect on pilot successes and failure
- Need to allow for SRP funding of post-pilot changes (i.e., on the pilot island).
- Need to agree any subsidy arrangements, payment of food waste operator and responsibility for maintenance / repairs
- Maintenance schedule should be coordinated across islands; provide mechanism for sharing use of systems during downtime
- Potential for solar to support or enable running of dehydrators

## **Questions arising from co-design process**

### **Dehydrator questions**

Responses have now been received from the manufacturer to all the questions raised in the group discussions.

### **Servicing, maintenance and repairs**

- The Eco Smart Food Waste Dryer is designed to be maintained and repaired by a competent local engineer with general electrical and mechanical experience (for example appliances, agricultural machinery, pumps, motors, etc.). There is nothing proprietary or specialist about the core components.
- In real-world use, customers in remote locations do exactly this, with our technical team providing telephone and video support where required.
- Routine maintenance is straightforward, and for fault-finding we can guide local engineers step-by-step. In practice, this avoids the need to fly technicians in for the vast majority of issues.
- The waste operative would be provided with virtual training by the engineer at Bergmann prior to installation.

### **Reliability, niggles and operational considerations**

- The units are generally very robust, but like any piece of processing equipment, performance is best when a few key points are followed:
  - Avoid consistent overloading – sticking to recommended batch sizes helps prevent unnecessary strain.
  - Regular cleaning of internal surfaces and filters keeps drying efficiency high.

- Ensuring the waste stream is reasonably mixed (not all wet or all fibrous) gives the most consistent results.
- Routine visual checks of seals, fans and heating elements are usually sufficient to keep the unit running happily.
- These are well covered in the operating and maintenance guidance, and we support customers closely during the early period to make sure everything is optimised.

#### **Establish if powder is an airborne hazard**

- The dry product is not an airborne hazard. It is merely food waste with most of the water content removed.

#### **Establish if high oil content is a problem / level of acceptable oil input**

- Large quantities of liquid oil (such as deep-fat fryer oil) are not suitable for disposal through the dryer. The system is intended for food waste rather than free liquids.
- That said, food waste containing fats and oils (for example cooked foods, sauces, meat trimmings, etc.) is perfectly acceptable as long as it is mixed with other waste.
- If a waste stream is becoming overly oily, the usual guidance is to:
  - Reduce the proportion of high-oil material in a single batch
  - Mix with drier food waste to absorb excess oil
  - Continue to manage bulk liquid oils separately, as you would with any other waste system.

#### **Noise level of dehydrator**

- Less than 60db (e.g. everyday conversation between two people; background music in a restaurant; an air conditioner; a dishwasher running).

#### **Find out consequences of compostable bags in the waste stream**

- The term 'biodegradable' is very loosely applied. There are all sorts of manufacturers claiming biodegradability. We are told by one of our customers that uses [this brand](#) that they disintegrate in the machine. We cannot vouch for any other makes.

#### **Feedback from those using dehydrators on small islands**

- Contact details have been supplied; awaiting response from user in Lerwick.