



Spotlight

Business food waste composting: Ardtornish

December 2024



This case study reviews the relocation, refurbishment and start-up of food waste composting at the Ardtornish Estate, located on the Morvern Peninsula. It looks at learning to date on taking food waste from holiday cottages and using this to create compost for their extensive kitchen gardens.

Start-up and operation

As part of the Highland Community Waste Partnership, Lochaber Environmental Group refurbished and relocated a Rocket composter to the Ardtornish Estate, working with them to compost food waste from the site, with support from suppliers Tidy Planet.

Operation of the composter commenced at the start of the holiday season, over Easter 2024 with food waste collection caddies and supporting information materials distributed to the 10 holiday cottages and 6 holiday apartments to encourage visitors to contribute to the effort, by bringing their food waste to two collection points on-site.

A Scottish Environment Protection Agency (SEPA) paragraph 12 exemption (Composting), application was made for the composting of biodegradable kitchen and canteen waste excluding meat. This meant that for the initial operation, no meat products could be added.

A manual data recording system was put in place to track the **temperature** from two places in the Rocket and the **overall weight** of food waste placed in the composter. We also made efforts to track the amount of compost being generated and any feedback on operations.

Ardtornish are also in the process of building compost bays for maturation and also to be able to use the compost from the Rocket as a “starter” or “injector” for their manual garden waste compost piles as they will also be moved here.

Impact

Between April and December 2024, a total of **814kg of food waste** has been diverted from landfill and into the Rocket composter, with **65kg of compost** generated.

As of the end of the project, we were still learning the right combinations and proportions of food waste to 'brown waste' required to optimise production. Some of the compost has been recycled back through as 'brown waste' due to it being too dry, or the woodchip used as brown waste not being fully composted.

Learning

A system of checking the food waste collections was put in place to ensure that no unwelcome items would be fed into the system. This meant looking for **meat products, plastic waste (e.g. sauce sachets)** or **cutlery** and removing them before the waste was fed into the Rocket.

Another requirement was to remove the food waste from any compostable or biodegradable **bags**, as the manufacturer indicated that these can cause the machine to malfunction.

It became clear that customers don't always remove meat products, so meat / animal-by-products (**ABP**) have been added to the renewed exemption application. This makes monitoring the temperatures all the more important, as there are set requirements of temperature and times that must be observed.

The **seasonal variation** in the amounts of food waste collected between high season and low season has also been a challenge. To counteract this, amendments have been made to the speed of the Rocket and supplementary greens from the garden added when needed, to support a more consistent throughput.

The biggest learning curve has been the nature of the food coming from the holiday cottages, which depends on what people are cooking and so is not consistent or predictable and can lead to too much of a single thing at any given time. When large parties book the accommodation there can be large quantities of pasta or cooked vegetables. Basically, this can lead to too much of one type of food.

Other **fluctuations in input** come due to the variation in sizes of the groups coming – e.g. 2 weeks of a large group followed by 2 weeks for smaller groups, who might be more likely to be using vegetables.

These must be balanced out or may require a second round of recycling through the Rocket. In particular, output can be held in a sealed container to cool, then fed back in as a supplementary brown material.

Working with Tidy Planet has been positive, and they have provided technical support and help with understanding.

The project has also benefitted from being part of the In-vessel Composting Network, set up by Lochaber Environmental Group to support in-vessel composting efforts across the Highlands.

Going forward

Ardtornish are continuing to refine the information given in their accommodation and hope that the ability to compost ABP's within the Rocket will also simplify the process.

An online system for data-logging will be reviewed and implemented if it is easy enough to use.

It has been important to accept that the move from traditional composting processes to those needed for in-vessel food waste composting takes time, and that confidence about changing the mix to meet the input materials builds with usage and experience.



The Rocket composter is seen as an exciting addition to the estate and its sustainable journey.

Learn more: www.lochaberenviro.org.uk/

The Highland Community Waste Partnership (2022-2025)

Funded by The National Lottery Climate Action Fund and coordinated by Keep Scotland Beautiful, the Highland Community Waste Partnership (HCWP) brought together eight community groups in the Highlands to reduce waste and promote more sustainable consumption.

Learn more here: www.keeptscotlandbeautiful.org/highlandcommunitywaste/