



Spotlight



Collaborative composting in Knoydart

March 2025



This case study looks at a composting collaboration between the Knoydart Farm CIC and the Old Forge Community Benefit Society (CBS) based at Inverie on the Knoydart peninsula.

Background

Knoydart is a remote community. It is part of the Scottish mainland but it is not connected to the road network. It's either a two/three-day hike or a ferry trip from Mallaig – which itself is nearly an hour outside Fort William at the end of the road.

Knoydart is a resourceful place, but in 2020 it became apparent that it is over-reliant on the food logistics chain that flows and ends up at Mallaig – before then making an extra hop over to Fort William. Couple this with growing awareness around the issues with chemically grown fruit and veg; as well as the carbon footprint of bringing produce all this way then sending the waste back over on the ferry, it wasn't the hardest thing to see that Knoydart could benefit from locally produced, organic, healthy food. And so the idea of Knoydart Farm was born. – from www.knoydartfarm.co.uk

Knoydart Farm CIC initially contacted Lochaber Environmental Group when they advertised the Rocket A700 composter for relocation and, although this opportunity did not come through, an alternative solution was identified for a local food waste composting pilot.

Start-up and operation

A non-powered machine was felt to be the best option for this trial, enabling it to be sited either at the farm itself or at the Old Forge CBS, if a suitable space could be found. By trialling a manual machine this would allow us to explore the effort needed to rotate the composter regularly and see what temperatures it would reach.

A Jora JK800 was selected, as one of the larger of the Jora manual models. It was decided that this would be best placed at the back of the Inn, so that food waste could be put directly into it, and then the compost, when ready, could be loaded into containers and moved the short distance to the farm.



It was installed in December 2024 and quickly put into use, with vegetable and other preparation waste from the Inn going into the composter, along with coffee grinds, plate waste and occasional spoilage.

Initial use indicated that the composter was able to heat up very quickly, consistently reaching between 60-70 degrees Celsius despite the winter cold.

While the composting pilot was being planned, the Old Forge CBS also participated in the [Business Zero Waste Food Challenge](#) being delivered as part of the [Highland Community Waste Partnership](#) by the Highland Good Food Partnership. More information about their food waste reduction efforts can be found [here](#).

Learning

In the few months it has been on trial there has been a lot of learning, with plans to continue adapting and learning how to use the Jora to ensure the best results.

Initially the quality of the compost produced was excellent, dry and of a consistency that you would be happy to handle.

“It works amazingly well, and we had the first compost out of it within a few weeks; 2 bags of excellent quality compost of a good consistency, which has been transferred to maturation bays at the farm.”



However, as more food waste of different types was added, it has become clear that a balance was required in order to maintain the quality of the compost that works for both the Inn operations and the machine.

The potato peelings from the peeling machine are very wet and this impacts the consistency in the Jora and needs a lot of browns adding. This in turn means that composter can get packed too full and become too heavy and hard to spin. It is also affecting the volume of food waste that goes into the composter, as there is such a high proportion of browns / woodchip.

To combat this, they are going to start only hot composting raw and cooked meat, eggshells, citrus peels, and plate scrapings (any cooked food). The raw veg scraps are going to be cold composted at the farm. This will need an adaptation of the processes which is currently being planned.

Additionally, due to the remoteness of Knoydart there are times when produce arrives and is not consumable, known as “spoil”. Some of this spoilage can be difficult to process as it may be a lot of one item e.g. 70 fillets of fish. It is hoped that with greater knowledge of the workings of the composter, some of this spoilage might be able to be composted leading to less “bin-waste”.

The pilot has generated a lot of interest within the community and they are hoping to start an interest group for the Knoydart community who may be interested in other composting initiatives. They also acknowledge that wider solutions will need further funding and education for community initiatives.

Top tips

- Getting the mix and the process/procedures right takes time. Be prepared to experiment.
- Site the composter under some form of cover, as with the heavy rain on the west coast this finds its way into the composter and adds to the wet consistency.
- Ensure food is not too wet unless you can add lots of browns to counteract this. Changing to sawdust has improved the mix and the quality of the compost produced.
- To aid planning for a solutions get to know your food waste quantities and weights to help identify the right size of composter.
- Get to know local composting enthusiasts as they have some great knowledge they can share, gathered over a period of time.
- Identify additional volunteers to support a rota for when the system is up and running.

Going forward

There is a lot of interest in the community, and it is hoped that this pilot will provide the impetus to get others involved and develop a system that would allow more community options for food waste.

The current version is proving the process and that it's possible to have a circular food waste system for Knoydart, including potential for household food waste pick-up. The participants acknowledge that there needs to be a debate in the community about who should pay for it and how exactly it would work. This would greatly reduce the amount of waste leaving the area by boat, and would also create a highly beneficial product to support local growing.

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.keepsotlandbeautiful.org/highlandcommunitywaste