

# Compost bin carbon savings

## Overview

At South Seeds we wanted to measure the actual environmental impact of our Climate Challenge Funded project. The project provides support and advice to help residents of Govanhill, Crosshill, Queen's Park Strathbungo and Pollokshields East, in South Glasgow to start composting their food waste.



To do this, we looked at one of the bins we had installed, in one of the neighbourhoods we work in, Govanhill. We managed to find out how much food-waste one bin could divert from landfill by working out it's dimensions and how long it took to fill up.

We decided to calculate the amount of food-waste that could be diverted from landfill if a compost bin (as in the picture above) was built and installed in each of the backcourts in Govanhill and used by residents to compost their food-waste.

## The calculation

1. First, the volume of the compost bin was calculated from its internal dimensions: 1.2m (width) x 0.77 (depth) x 0.60 (height) = 0.55m<sup>3</sup>
2. The volume taken up by 1kg of food waste was then measured as approximately 0.002 m<sup>3</sup> (13 x 13 x 13 cm). The weight of food-waste contained by a full compost bin could be calculated as: 0.55m<sup>3</sup> ÷ 0.002 m<sup>3</sup> = 275kg
3. South Seeds estimated that it took approximately 1 year for an average tenement block in the area to fill one of these compost bins.
4. The number of backcourts in the area was counted on a detailed map. This revealed approximately 900 backcourts. Multiplying this number by the capacity of each bin gave a total of 248 tonnes of food-waste that could be turned into high quality compost rather than going to landfill.
5. According to DEFRA, we can prevent 564 kgCO<sub>2</sub>e (carbon dioxide equivalents) per tonne of food-waste composted rather than sent to landfill, check [www.ukconversionfactorscarbonsmart.co.uk](http://www.ukconversionfactorscarbonsmart.co.uk) for data. Therefore 248 tonnes of food waste composted x 564 kgCO<sub>2</sub>e = 139,872 kgCO<sub>2</sub>e (**140 tonnes CO<sub>2</sub>e**) prevented.

## South Seeds statistic for composting locally

***Up to 140 tonnes of CO<sub>2</sub>e would be saved if every backcourt in Govanhill had adequate composting facilities, which were well used.***

View all our support to get composting at: <http://southseeds.org/time-to-start-composting/>

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