



# CLOSED-LOOP COMPOSTING

A 'how-to' guide on turning waste into soil-nurturing compost to grow food & flowers



## LET'S TALK ABOUT WASTE

**95% of Bristol's refuse is incinerated. Around a quarter of this is food waste.** Energy recovery incinerators are not designed to handle food waste, as its high water content leads to inefficient combustion and can damage the boiler. Burning food waste uses more energy than it produces, and these incinerators emit more carbon dioxide (CO<sub>2</sub>) than coal plants, which have all been shut down due to their environmental impact.

**5% of Bristol's refuse goes into landfill where it releases CO<sub>2</sub> and methane.** Methane is 80x more potent than CO<sub>2</sub> in the short term. Both gases warm our planet, causing climate change.

At the same time, our soils are being depleted. Plant matter continues to be removed without replenishment, leaving just the bare minerals; rock, sand, and clay. In nature, soil is continually fed with organic matter, such as leaves decomposing on a forest floor.

We need to divert food waste from incinerators and landfill. By helping schools, local businesses, and individuals turn it into compost instead, we can all work together to heal our soil and planet.



## TURNING FOOD WASTE INTO FLOWERS

At Heart of BS13, we see food waste as a resource rather than a problem.

We collect food waste from local homes, schools, and cafés on our e-cargo bike. Using a Ridan, maturation boxes, and a series of bays, we turn it into nutritious compost to feed the soil on our flower farm in South Bristol. This is what we call a closed-loop system. Waste is turned into compost, compost feeds the soil, the soil grows flowers and food - and the cycle continues!

Our composting programme is part of a wider mission: to take climate action, grow local abundance, and involve our community in healing the land.



One Ridan can compost up to  
**10 TONNES OF FOOD WASTE PER YEAR**

saving 70 tonnes of CO<sub>2</sub> from being released into our atmosphere



**SOIL HOLDS 60% OF THE CARBON**

captured by plants from the air, through photosynthesis



## WHAT IS A **Ridan** COMPOSTER?

It is an insulated composting system, which works like a giant corkscrew on the inside. The manual design makes it easy for both kids and adults to use.

Food scraps are fed in one end and come out the other, after they have been turned, aerated, and naturally become hot. It's an anaerobic process, which means oxygen is always present - encouraging good bacteria, whilst the heat works

to kill pathogens. This means all food waste can be composted safely, including meat, fish, and dairy. The pre-compost released from the Ridan needs breaking down further in a rodent-proof maturation box. It is then moved for the last time into a static composting bay where it 'cures', becoming rich with worms and other beneficial critters which affectively 'manure' the compost, providing more nutrients available to plants.



## READY TO GET COMPOSTING?

1. Collect food scraps in sealed bins
2. Empty into the Ridan with the same volume of woodchip
3. Turn the handle to mix and aerate it
4. Put the pre-compost released from the Ridan into a maturation box
5. After two months in the maturation box, move the compost into a static bay to cure a further two months
6. Use the finished compost on garden beds, school plots, or community sites



Compost should feel as moist as a wrung-out sponge. The good bacteria needs both air and water to thrive, so your pile may need watering if it feels too dry.

It's not just about compost.  
It's about giving people the power  
to be part of climate solutions.

Jenny — Compost Lead, Heart of BS13



## JOIN THE LOOP!

**Attend** a site tour or workshop

**Partner** with us for food waste collection

**Book** a consultation for your business, school, or organisation

Want to start composting in your community?

We can help!



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