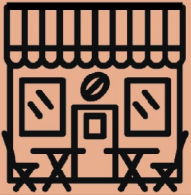


GROUNDS FOR NUTRITION

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CAFES BY THE NUMBERS

Spent Coffee Grounds (SCG), grounds left after a cup of coffee is brewed, are a fundamentally unavoidable waste product in the Cafe industry, but how much is really produced each year?



There are
~24,000 Cafes
in the US

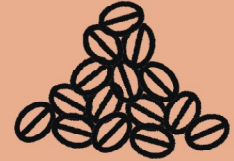
An average Cafe
can sell between
200-300 cups
of coffee per day



~14g SCG produced/cup.
This means 1 cafe produces
~875 kg SCG per YEAR



If we assume a cafe is
open ~250 days a year, one
cafe can sell ~62500 cups/year



THE ISSUE WITH COFFEE GROUNDS

Green House Gas (GHG) Emissions:

most coffee grounds produced by cafes wind up in landfills where they decompose anaerobically, producing methane, CO₂ and other harmful GHGs

-1 ton of coffee grounds in landfill produces
~580kg CO₂ equivalent methane and CO₂ =26kg CO₂ eq.

Leachate:

-Coffee grounds in landfills are also acidic and high in caffeine, which can leach into nearby soil systems via groundwater

FOOD INSECURITY IN THE US

In 2022, 12.8% of US Households were food insecure at some point throughout the year. That's 17 million families, or approximately 44.2 million people who experienced food insecurity in that year. 7.3 million of these people are children.
This figure has increased each year since 2020, a trend projected to continue.

PRIMARY SDGs

2 ZERO HUNGER



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Growing Oyster Mushrooms on coffee grounds can provide urban households with a nutritious, vitamin-rich food source while minimizing environmental impact and reducing greenhouse gas emissions from cafe businesses

OUR SOLUTION

Feed Community Members With Mushrooms Grown on Spent Coffee Grounds

Waste or Resource?

Coffee grounds can be used successfully to grow oyster mushrooms (*Pleurotus Ostreatus*)

1kg of Coffee grounds can produce ~430 grams of Oyster Mushrooms on Average

Oyster Mushrooms are delicious, nutritious, and rich in vitamins, proteins and antioxidants.



Zero Waste Collection

- Given to partner cafes to dispose of used grounds
- Bins are collected daily to ensure freshness of grounds
- Recycled Cardboard construction allows bins to be used as-they-are to grow mushrooms completely, or can be broken down and mixed into garden containers
- Mailbox-Style Opening to reduce outside contamination

IMPACT

(Per Partnered Cafe/year)

- Reduction of up to 559kg CO2 equivalent GHG
- Diversion of nearly 1 ton of solid waste from landfills
- Estimated caloric production upwards of 125,900 kcal
 - Enough to feed 42 people a year!
- Nearly 12,627 grams of protein (as much as 1/4 of a cow!)

IDEAL SUBSTRATE

Typically, mushroom substrate requires sterilization at high pressure and temperature to be suitable for cultivation. Coffee grounds from cafes are sterilized through extraction, greatly reducing the energy required for preparation compared to traditional substrates.

See It In Action!



rotterzwam

- Started in 2013 in Rotterdam, NL

- Offer at home grow kits so consumers can collect their own grounds!

- Has diverted 300k tons of coffee grounds from landfills in total! That's equal to 114,635 kg CO2 eq!

- Primarily Operating within the Netherlands and in partnership with European groups. Our program would focus on the US, avoiding huge overlap

[\(https://www.rotterzwam.nl/\)](https://www.rotterzwam.nl/)

