GREENHOUSE GAS PRODUCED (*per 1000 kg of meat and meat by-products processed)

END USES

BIOSURVIVAL & REGULATION

ENVIRONMENTAL SUSTAINABILITY

RENDERING

INDUSTRIAL COMPOSTING

ANAEROBIC DIGESTION

Although fossil fuel can be required to produce steam for heating, many renderers use their fat products to fuel boilers, increasing energy independence.

200 kg GHG*

2500–4000 kg GHG*

60–500 kg GHG*

Recovered resources have a HIGH ECONOMIC VALUE $$$$$

Established Industrial Process operating under and controlled by a CODE OF PRACTICE in line with federal regulations to control pathogens & ensure animal food safety

Regulated to ensure safety of employees, the public, & the environment by STATES & the FDA, EPA, & USDA

Converted 99% of meat & meat by-products into ingredients for animal feed, biofuel, fertilizer, industrial and consumer products

Recovered resources have a HIGH ECONOMIC VALUE $$$$$

Small fraction of meat and meat by-products can be recovered as fertilizer

To destroy pathogens requires strict time & temperature control without this control, pathogens and environmental problems increase drastically

Recovered resources have relatively LITTLE ECONOMIC VALUE

Low energy requirements but, 45–75% of the carbon in meat by-products is released as CO₂, and 4–20% is released as METHANE (with 25x the global warming potential of CO₂)

Low energy requirements BUT if digestate slurry is stored in open tanks greenhouse gas emissions are multiplied by 10x

Nearly all CARBON IS RETAINED within rendered products and reused rather than becoming GHG

C4

CH₄

CH₄

C₄

Regulations on composting & anaerobic digestion vary from state to state.

No consistent federal regulations on air emissions or wastewater.

Seepage can harm people, animals, and plants

A Comparison Of 3 Alternatives For Large Scale Processing of Meat and Meat By–Products

Food Recovery Hierarchy
www.epa.gov/foodrecoverychallenge

Source Reduction
Reduce the volume of surplus food generated

Feed Hungry People
Donate extra food to food banks, soup kitchens and shelters

Feed Animals
Divert food scraps to animal feed

Industrial Uses
Provide waste oils for rendering and fuel conversion and food scraps for digestion to recover energy

Composting
Create a nutrient-rich soil amendment

Landfill/Incineration
Last resort to disposal

Rendering

Anaerobic Digestion

Industrial Composting

FOR MORE INFORMATION:

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