## (1) <br> SAFESUSTAINABLE ALTERNATIVE FEED ENTERPRISES

## The Food Scraps Solution


www.ForktoFeed.com

SAFE was formed to provide a "garbage man's" solution to the sustainable management of food scraps.

The SAFE system consists of patented technologies that:

- Assist in the segregation and efficient collection of food scraps at their source.
- Collect and transport food scraps in specialized vehicles and/or containers.
- Process food scraps into a high quality and nutrient-rich mash, for use as a key ingredient in non-ruminant animal feed.
- Result in approximately $90 \%$ of the materials collected in clean loads becoming feed meal/ water/F.O.G. (Fats, Oils \& Grease) and 10\% becoming compost.


It is estimated that approximately 1.3 billion tons of food is wasted each year globally. Most of this food is disposed of in environmentally sensitive landfills. According to the U.S. EPA's Food Recovery Hierarchy, landfill/incineration should be a last resort. The SAFE solution is preferred, as it recovers food scraps for animal feed and industrial uses.

Our mission is to see the SAFE solution become the industry standard for the collection and processing of food scraps.

The SAFE system revolutionizes the manner in which food waste is collected and processed.

The system not only overcomes a host of problems that have long plagued the waste industry, it also addresses the concerns behind food scrap recycling mandates. Our system succeeds by handling food scraps separately from all other components of the waste stream during each of the following steps:

## Hub \& Spoke Model

STEP ONE -
COLLECTION


STEP ONE: SAFE patented equipment is used to facilitate the collection, and transportation of food scraps separately, resulting in an easily extractable stream with minimal contamination.

STEP TWO: SAFE extraction equipment converts raw food scraps into a mash while expelling non-foods such as paper and plastics. This equipment can be located at any suitable site including an existing transfer station or Material Recovery Facility (MRF). The location is considered a SAFE "spoke."

STEP THREE: SAFE mash is transferred to a regional production facility, or "hub," in sealed tanker trucks. The production facility houses patented drying and processing equipment in a clean environment.

SAFE's strategy is to partner with existing waste haulers to perform steps $1 \& 2$ (spokes) while maintaining full or partial ownership of production facilities (hubs) thereby maintaining quality control over the drying process as well as ownership of the output products.

## The Final Product: Feed Ingredient: <br> 36.9\% Carbohydrate <br> 

26.3\% F.O.G. (Fats, Oils \& Grease)
20.8\% Protein
6.3\% Fiber
6.2\% Ash

- $3.5 \%$ Minerals


## By-Products:

Water: 200 gallons of water per Water: 200 gallons of water pe
ton of food scraps is captured. ton of food scraps is captured.
SAFE is currently the only system SAFE is currently the only system
proven to reclaim clean water proven to reclaim
from food scraps.
F.O.G. (Fats, Oils \& Grease) 25 gallons of clean F.O.G. are extracted per each ton of mash Clean F.O.G. is used as a high grade input for bio-fuels production or as a feed supplement. Our F.O.G. is equivalent to \#2 yellow grease

The SAFE process converts food scraps into 3 commodities: a final dry feed product, reclaimed water, and F.O.G. (Fats, Oils \& Grease).

## The dry feed

 product conforms to USDA guidelines for non-ruminant animal feed.Marketing efforts have provided buyers for all of the dehydrated meal and F.O.G. that the SAFE system produces. In addition, testing is in progress to formulate higher value feeds and pet foods. The SAFE strategy is focused on engaging manufacturers that will

produce a private labeled
end-product based on our customers' needs.
SAFE associates have access to national and international feed markets and will explore other marketing partnerships as they become viable.

Visit our website at: www.ForktoFeed.com
Visit us on Facebook: SAFE Sustainable Alternative Feed Enterprises Company

SUSTAINABLE ALTERNATIVE FEED ENTERPRISES

## Step 1 - Collection

To assure integration with current infrastructure and systems, we offer a variety of sourceseparated food scraps collection strategies. The end result of any chosen collection strategy is efficient and effective service with minimal disruption to customers.

## Existing Fleet Conversions

## Food Scraps Collection:

- Removable auger insert for front loader body.


## Residential:

- Retrofit auger kit installed into an existing automated side loader body, complete with a split hopper allowing for dual-tipping capacity.
- Auger retrofit inserted into tailgate, allowing for dual-use: residential or food scraps-only routes.


## Containers

## Food Scrap Collection:

- Traditional front-load bins and/or carts.


## Residential:

- Insert for use in existing container, separating two commodities.
- New split cart.
- New separate cart.

We are continuously working with truck/ container manufacturers to design and manufacture equipment that best suits the needs of a variety of collection programs.

Covered by U.S. patent number 8,973,491 and one or more pending patent application.

## COMMERCIAL - FRONT LOADER



Removable auger insert for front loader body.


Traditional Bins and/or Carts.

## RESIDENTIAL - AUTOMATED



Retrofit auger insert kit to be inserted into an existing automated side loader body. Split hopper allows dual-capacity inside body:


RESIDENTIAL/COMMERCIAL TAILGATE RETROFIT


Auger retrofit inserted into tailgate. Allows for dual-use: residential or food waste-only routes.


20 to 96-Gallon Cart.

## Step 2 - Extraction

SAFE extraction equipment converts raw food scraps into a mash while expelling non-foods such as paper and plastics. This equipment can be located at any suitable site including an existing transfer station or Material Recovery Facility (MRF). The location is considered a SAFE "spoke." Once the food scraps are delivered and unloaded at the SAFE "spoke," the following extraction process commences:

1. Collection container positioned to empty into hopper with screw conveyor.
2. Material conveyed to shredder, removing contaminants and preparing material for screw press.
3. Food grade storage hopper conveys material to screw press.
4. Screw press separates compostable contaminants and produces liquid mash.
5. Liquid mash pumped to refrigerated storage tank for transport to production facility.


Covered by U.S. patent number $8,973,491$ and one or more pending patent application.

# Where can I get more information about SAFE? <br> Visit our website at: www.ForktoFeed.com 

## Step 3 - Production

SAFE mash is transferred to a regional production facility, or "hub," in sealed tanker trucks. The production facility houses drying and processing equipment in a clean environment.


## The Final Product:

Feed Ingredient:

- 36.9\% Carbohydrate
- 26.3\% F.O.G. (Fats, Oils \& Grease)
- 20.8\% Protein
- 6.3\% Fiber
. $6.2 \%$ Ash
- 3.5\% Minerals


## By-Products:

Water: 200 gallons of water per ton of food scraps is captured. SAFE is currently the only system proven to reclaim clean water from food scraps.
F.O.G. (Fats, Oils \& Grease): 25 gallons of clean F.O.G. are
 extracted per each ton of mash. Clean F.O.G. is used as a high grade input for bio-fuels production or as a feed supplement. Our F.O.G. is equivalent to \#2 yellow grease.

Marketing efforts have provided buyers for all of the dehydrated meal and F.O.G. that the SAFE system produces. In addition, testing is in progress to formulate higher value feeds and pet foods. The SAFE strategy is focused on engaging manufacturers that will produce a private labeled end-product based on our customers' needs. SAFE associates have access to national and international feed markets and will explore other marketing partnerships as they become viable.

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