



Submitted by: Josh Levine, Managing Director, jlevine@baycorpholdings.com, 603-766-8757
Company/Organization: Great Bay Fertilizer, LLC, Portsmouth, NH

Challenge or Opportunity:

For many years, our company has been involved in developing and operating numerous renewable energy facilities. Beginning in 2010, we identified that food waste is a significant issue as it is taking up valuable landfill space and creating harmful methane emissions which are contributing to climate change. The statistics are staggering: 40 percent of food in the United States goes uneaten; approximately 18 percent of all trash is food waste and almost all of this food waste is currently sent to landfills / incinerators; and global food waste represents more greenhouse gas emissions than any country in the world except for China and the US.

To address this challenge, we formed NEO Energy to up-cycle food waste using anaerobic digestion (“AD”) technology to create renewable energy which can be sold to electric utilities. Unfortunately, in the US, the revenues that can be derived from simply selling electricity and taking in food waste are not sustainable. In addition, the process of creating renewable energy through food waste AD results in a by-product called liquid digestate that is expensive to treat and/or dispose of.

Approach or Solution:

For NEO Energy to be successful, we couldn’t follow others. We recognized that AD is a highly effective means of recycling food waste but by itself is not a sustainable business model. Therefore, we chose to focus our efforts on figuring out how to solve the digestate dilemma and spent years developing and testing a recently patented drying technology which allows us to transform the liquid digestate into a dry, high-performing organic fertilizer for turfgrass. Thus was born, Great Bay Fertilizer, our revolutionary organic fertilizer with a high nitrogen content, where over half of our nitrogen content is ammoniacal nitrogen which is readily available for the turfgrass, as opposed to most organic fertilizers which do not show immediate performance.

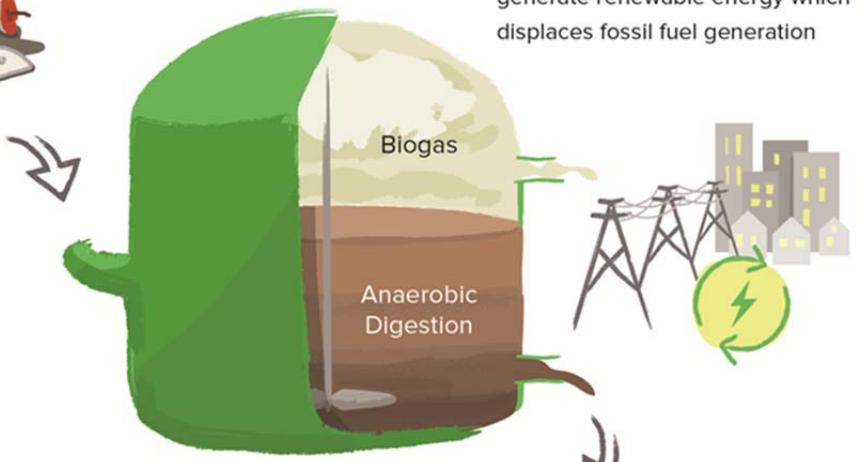
Impact:

As we worked through developing and testing our organic fertilizer, we realized that our “carbon story” extended significantly beyond just the avoided methane emissions from landfilled food waste and the benefits of renewable energy. While our organic fertilizer performs like a synthetic fertilizer with respect to plant growth performance, it significantly restores soil health and encourages increased microbial activity turning soil into one of the most effective and largest carbon sinks. Soil is the largest storehouse of carbon on land and using Great Bay Fertilizers allows an end-user to become a “carbon farmer” while not sacrificing any performance.



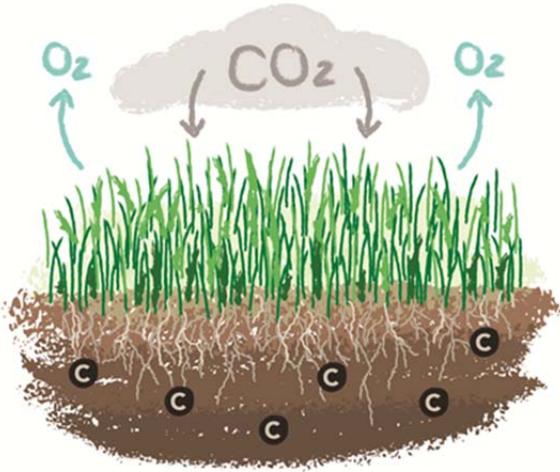
Destroy Methane

We divert food waste from landfills, reducing methane emissions (Did you know: If food waste was a country, it'd be the 3rd largest carbon emitter on Earth?)



Generate Renewable Energy

Biogas from our process is used to generate renewable energy which displaces fossil fuel generation



Promote Carbon Farming

Through photosynthesis and soil microbial activity, the use of our revolutionary organic fertilizer turns your lawn into a carbon farm, improving soil health and removing carbon from the atmosphere

