



# Food Waste Disposal and Recovery

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## Background

- In 2013, the US disposed more than 35 million tons of food waste
- The average household wastes \$2,275 worth of groceries every year
- 24% of the food waste is fruits and vegetables
- Landfills v. Composting
- Anaerobic digestion can turn this waste into useable methane gas for electricity and heat

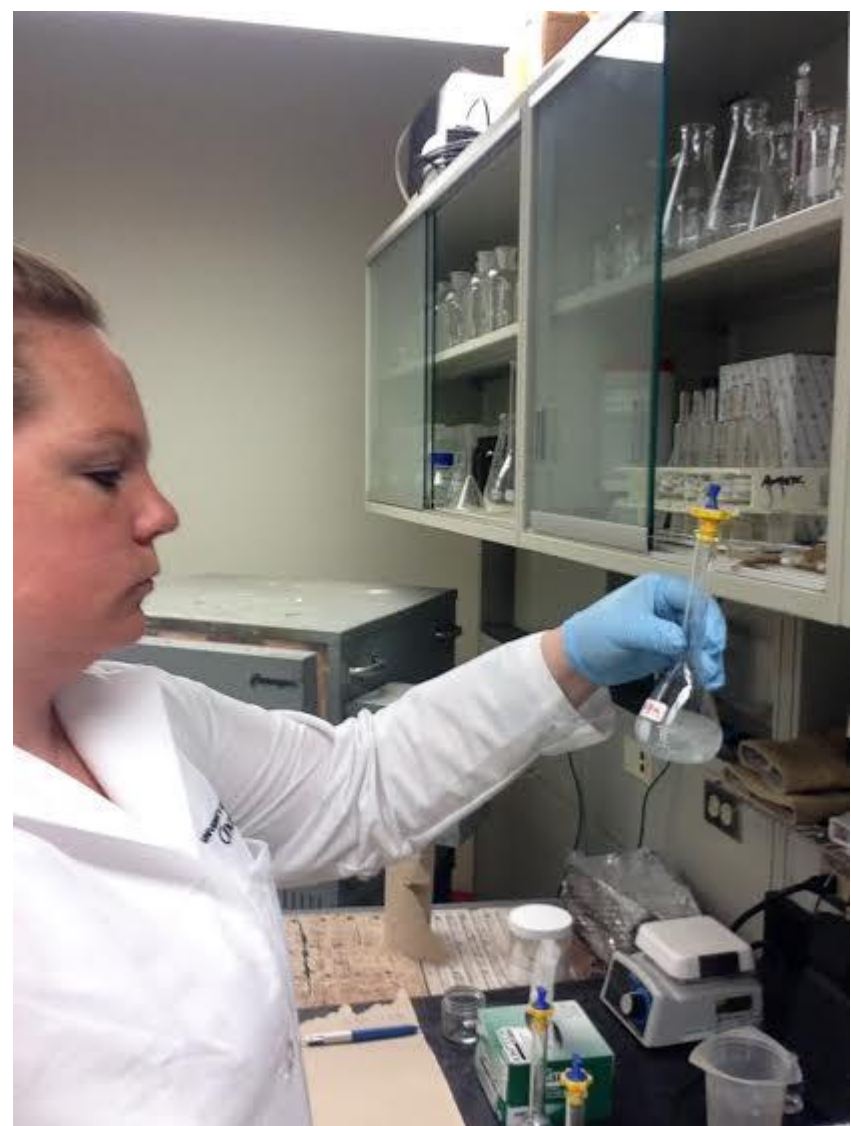
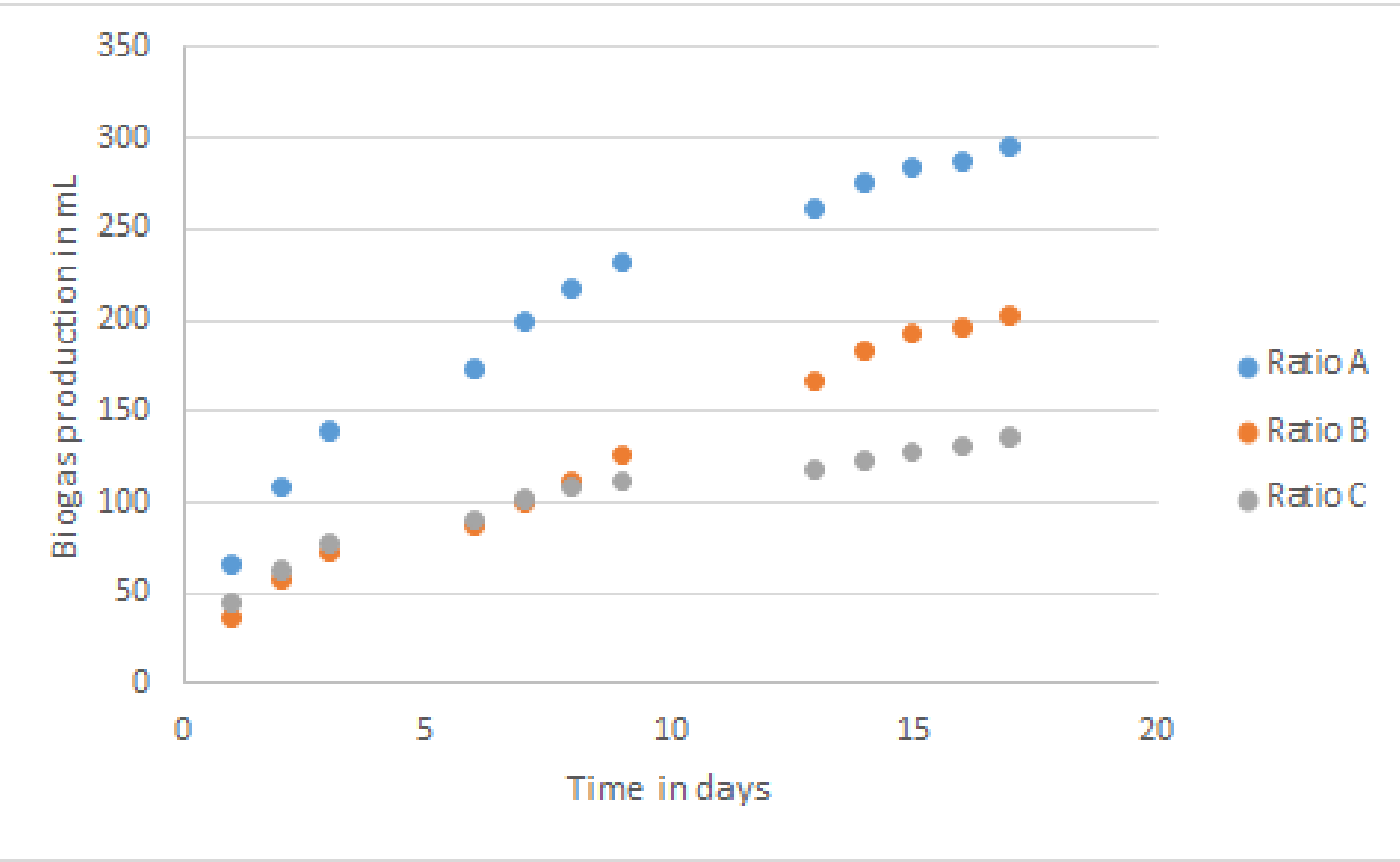


Greenvilleenergy.com

## The Research

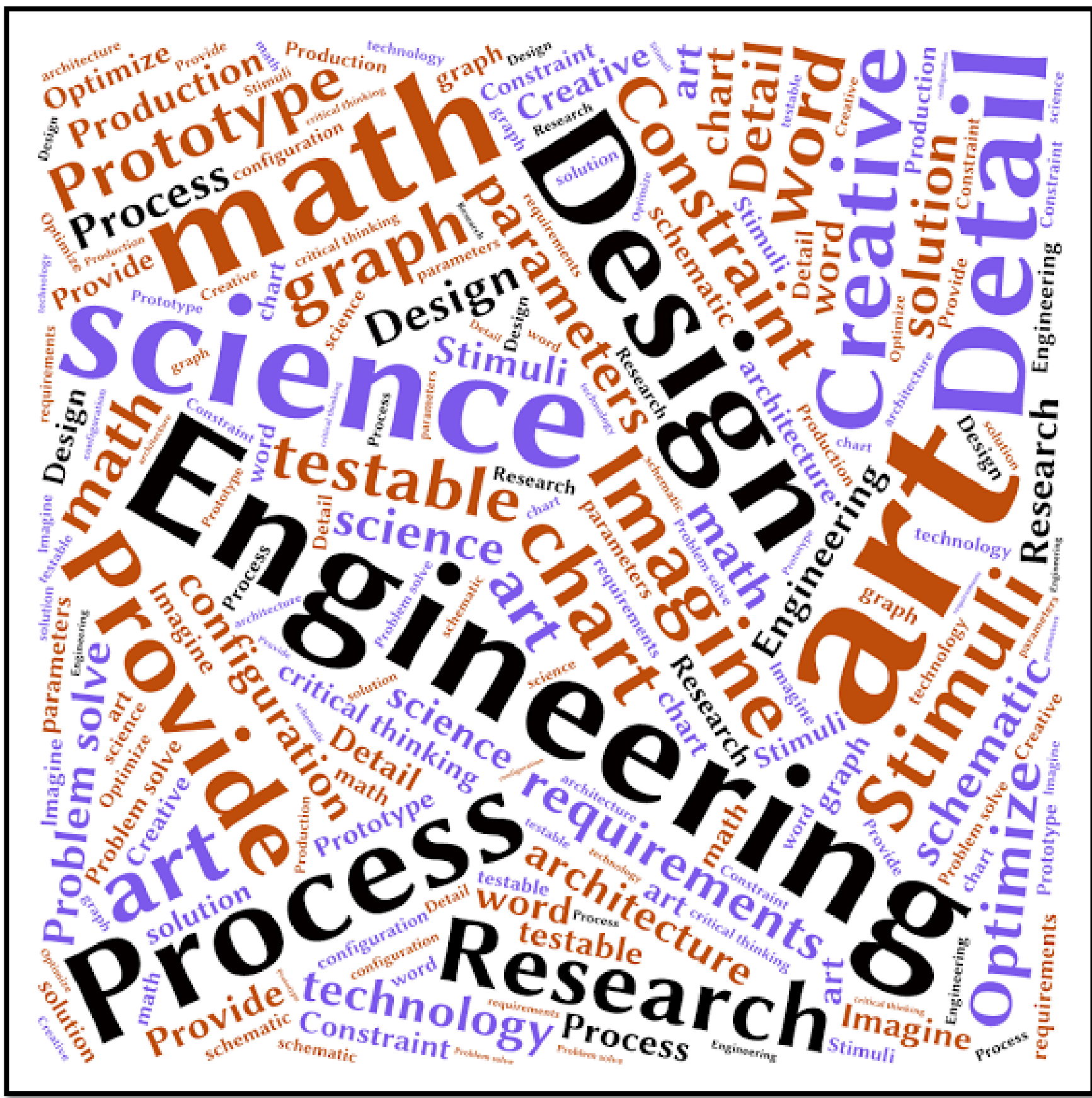
Experiment 1	1:3	1:1	1:9
Experiment 2	1:3	1:3	1:9
Controls	FW only	PS only	I only

Table 1 shows the ratios of food waste to primary sludge placed in each bottle for each experiment.



## From Research to Classroom

- Engineering works to improve the quality of life by using all knowledge, especially math and science
- Engineering is a team based practice where multiple, alternate solutions are identified under given constraints and each are tested and refined



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## Career Connections

- Civil Engineer
- Chemical Engineer
- Hydrologist
- Waste Management
- Wastewater and Water Operating Systems
- Agriculture and Food Science
- Nuclear Technicians
- Hazardous Materials Manager



## The Challenge

What can we do with food waste to help the community, but also live sustainably?



Blogs.britannica.com



Theveganmomonline.com

How can we lower methane gas production by keeping waste out of landfills?

**LOVE FOOD**  
Don't waste it.

Blessedwithbread.com



xmedia.ex.ac.uk

How can we limit the amount of food waste produced by each person worldwide?



Konbini.com



zerowaste.uoregon.edu