

Self-Mixing Biogas Generator
Faecal Sludge Management Conference
International Convention Centre, Durban
October 30, 2012

Mr. Tim Canter



BILL & MELINDA
GATES *foundation*

Agenda

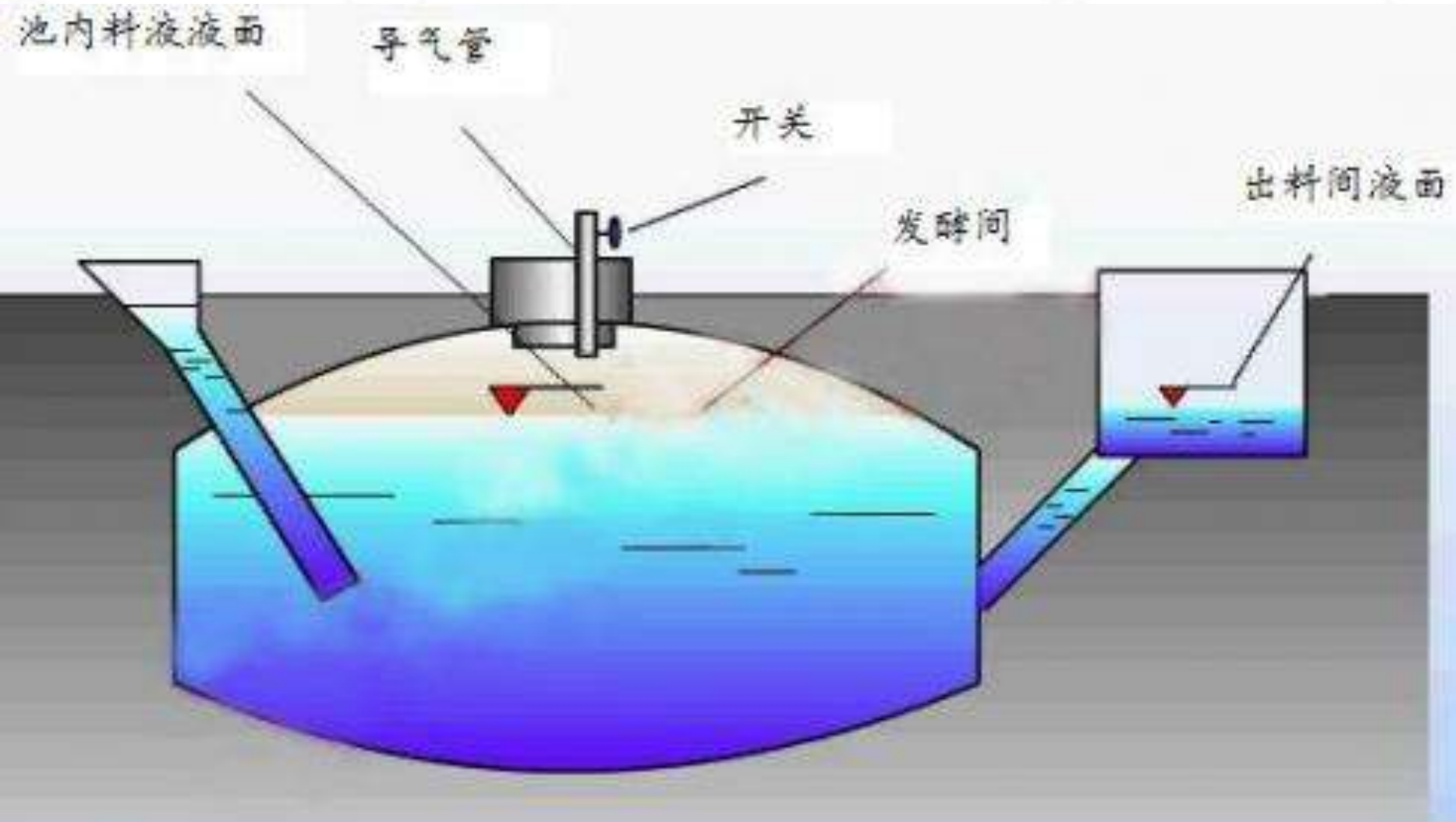
- **Conventional Biogas Generators**
- **Background on Frontier Environmental Technology**
- **Self-Mixing Biogas Generator**
 - **Concept and Operation**
 - **Data**
 - **Next Steps**

Unit Conversions

- 1 ft = 0.3 m
- 1 gallon = 0.004 m³

Conventional Biogas Generator

Conventional Biogas Generator



Conventional Biogas Generator



Conventional Biogas Generator

- **Challenges**

- Large Size

- Costly to build

- Fabricated onsite

- Lack of quality control in construction

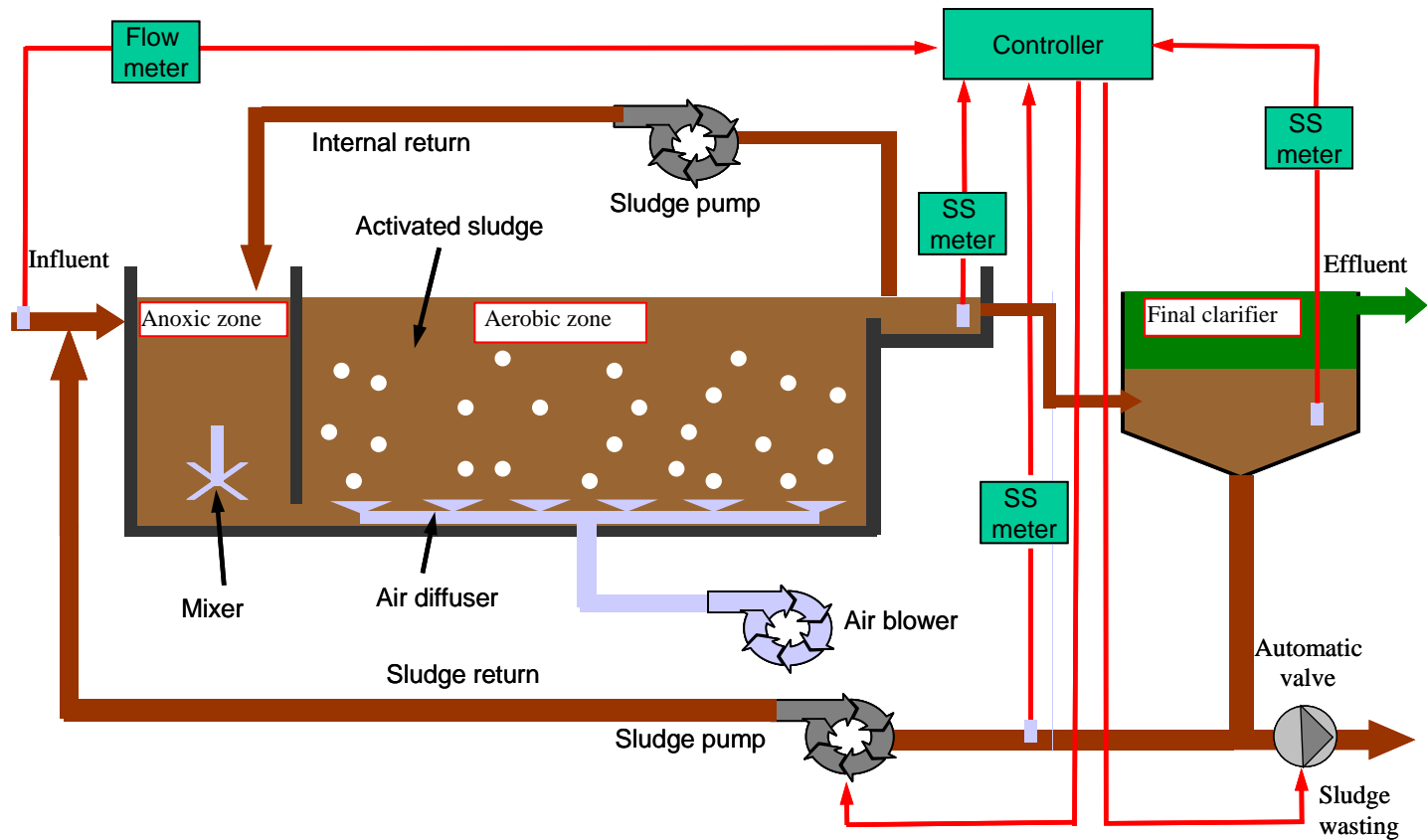
- Poor Operation

- Maintenance

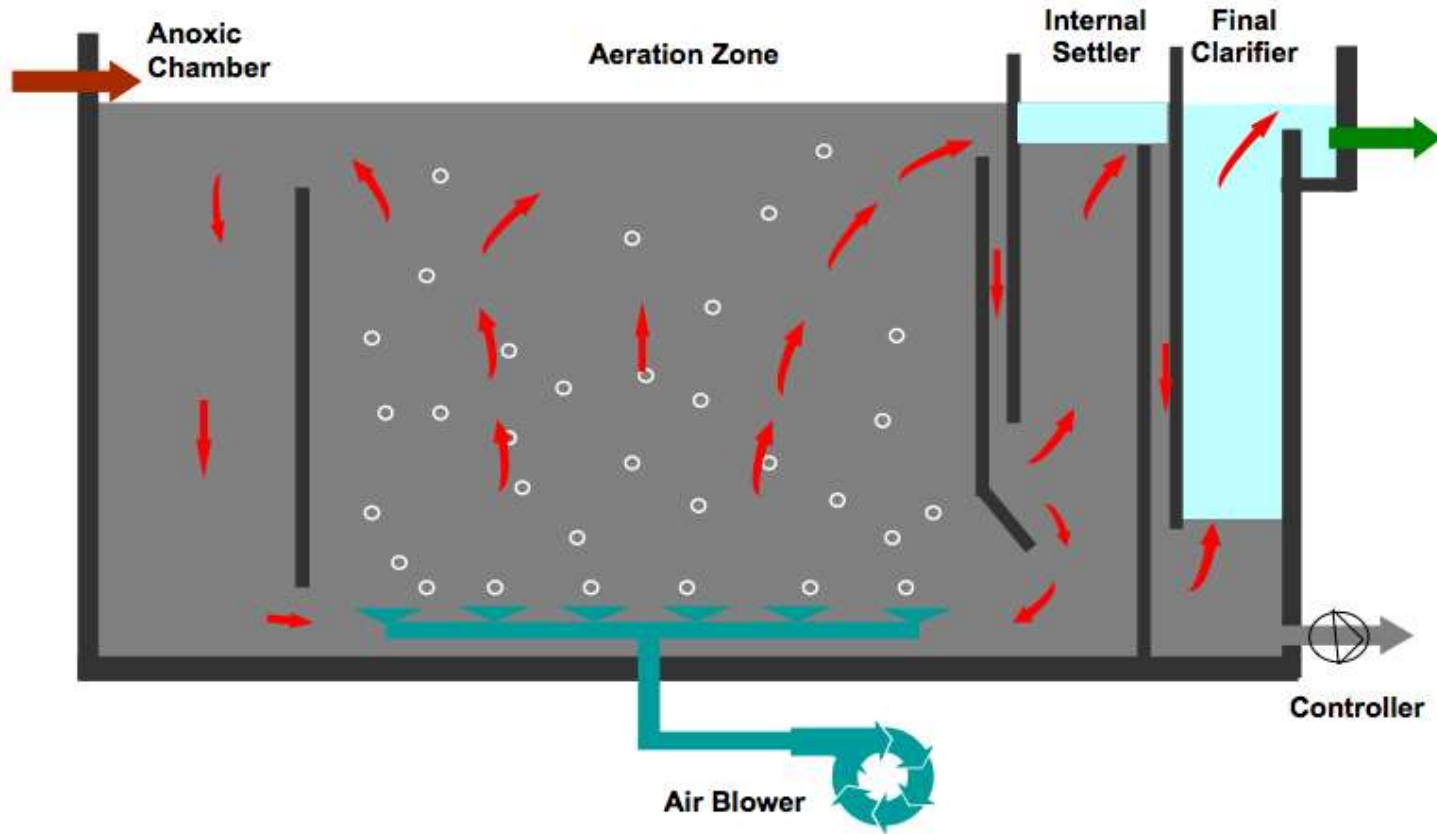
- Drain and clean inactive material

**Background on Frontier
Environmental Technology**

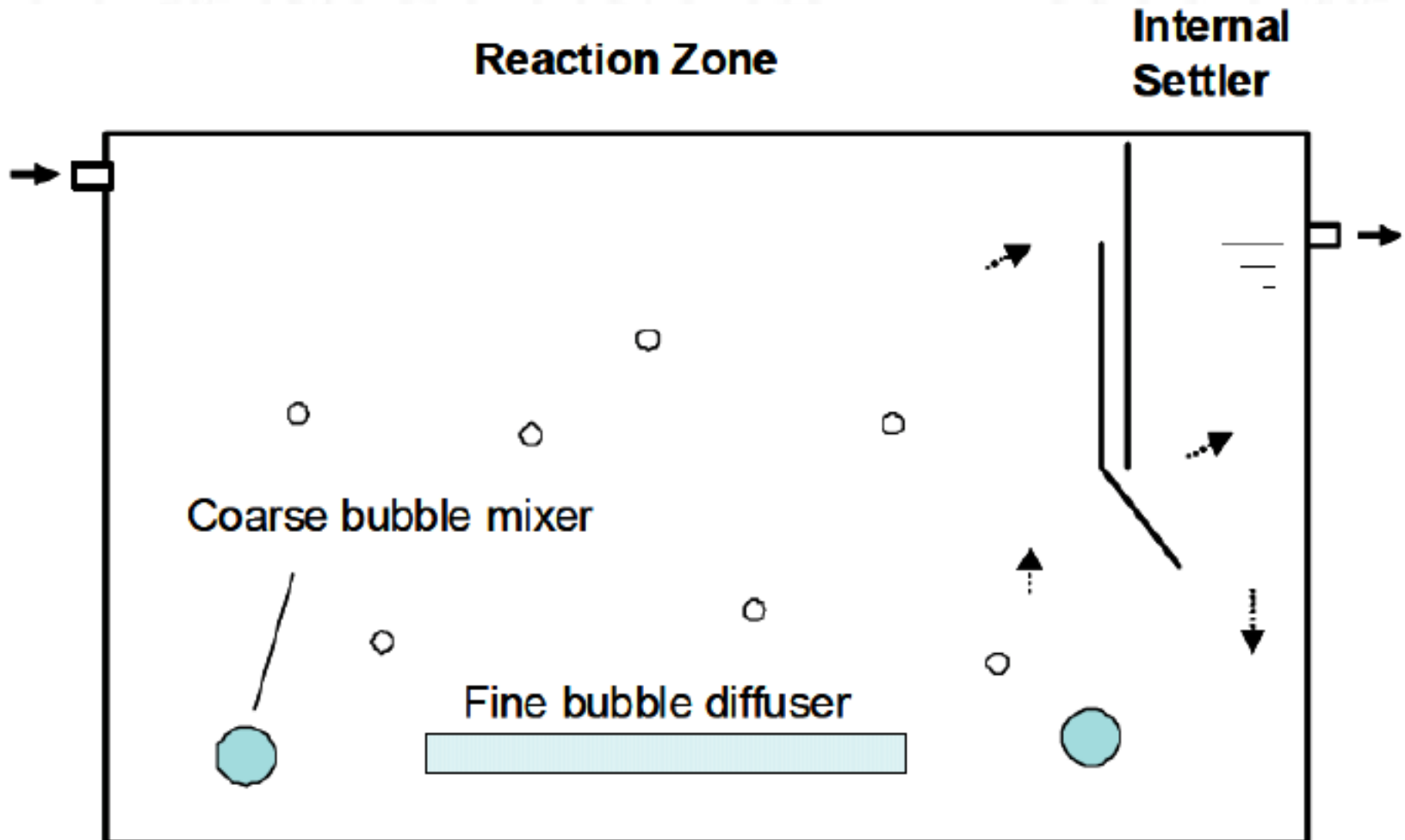
Background on Frontier Environmental Technology



Background on Frontier Environmental Technology



Background on Frontier Environmental Technology



Background on Frontier Environmental Technology



Self-Mixing Biogas Generator

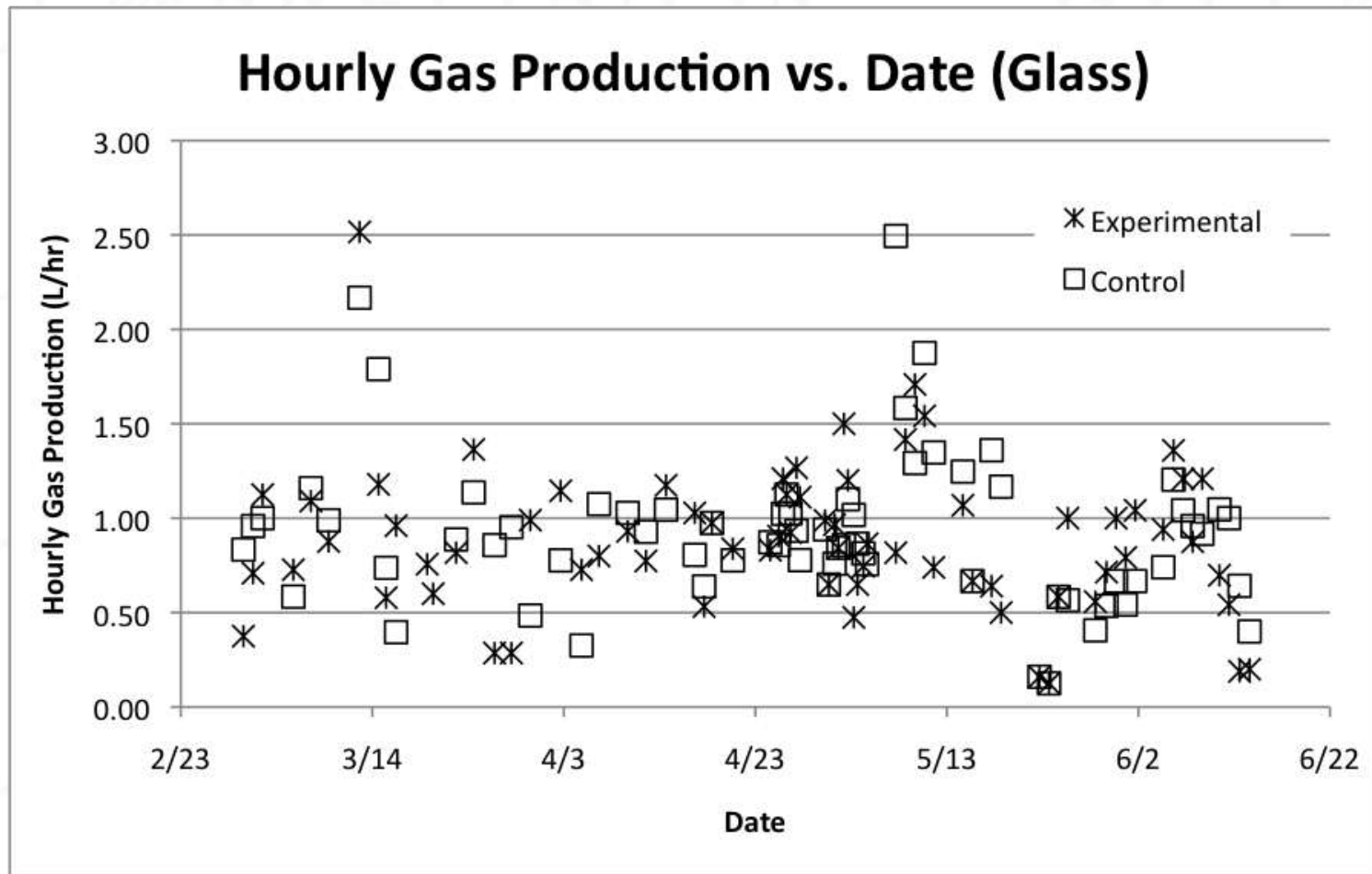
Self-Mixing Biogas Generator



Self-Mixing Biogas Generator



Self-Mixing Biogas Generator



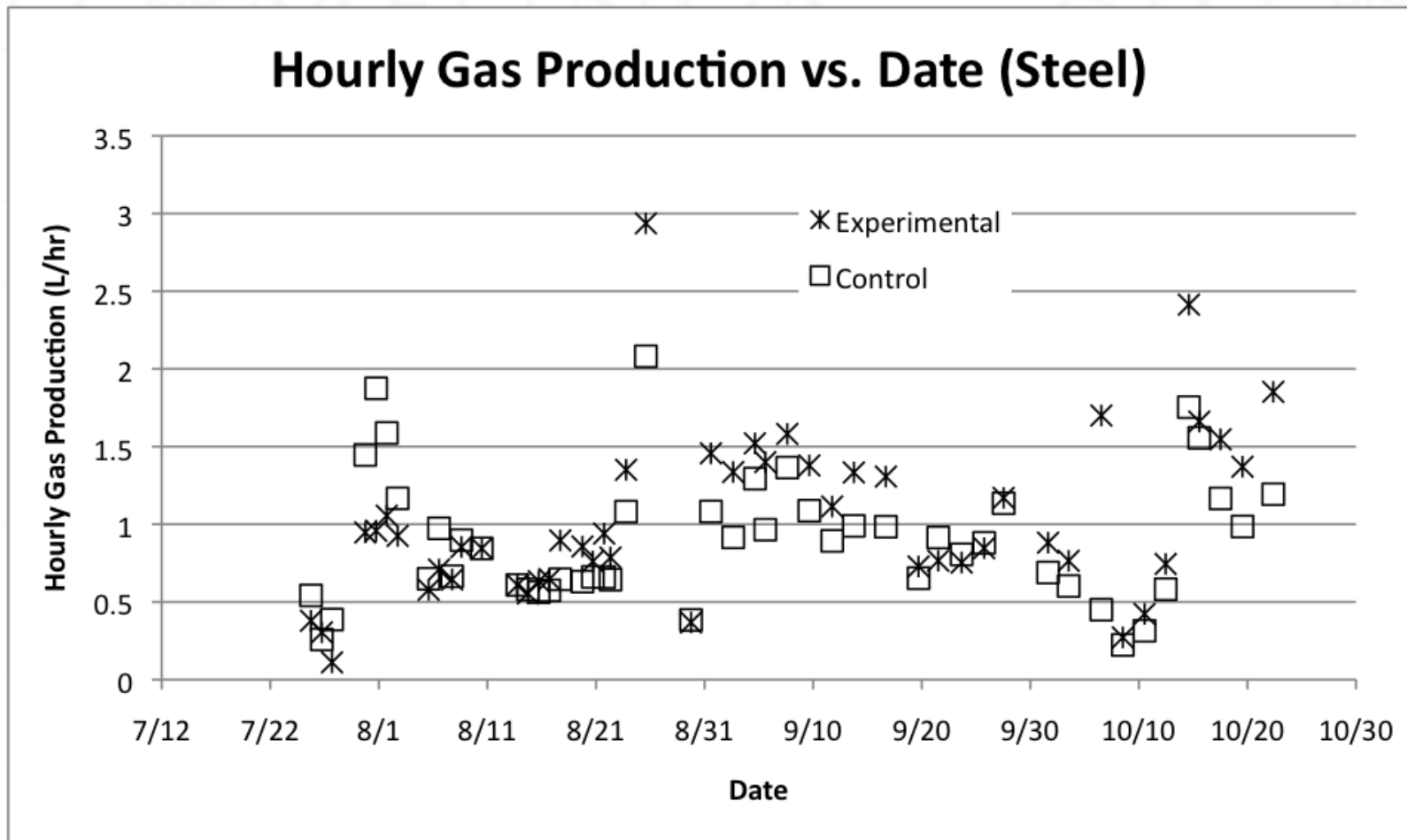
Self-Mixing Biogas Generator



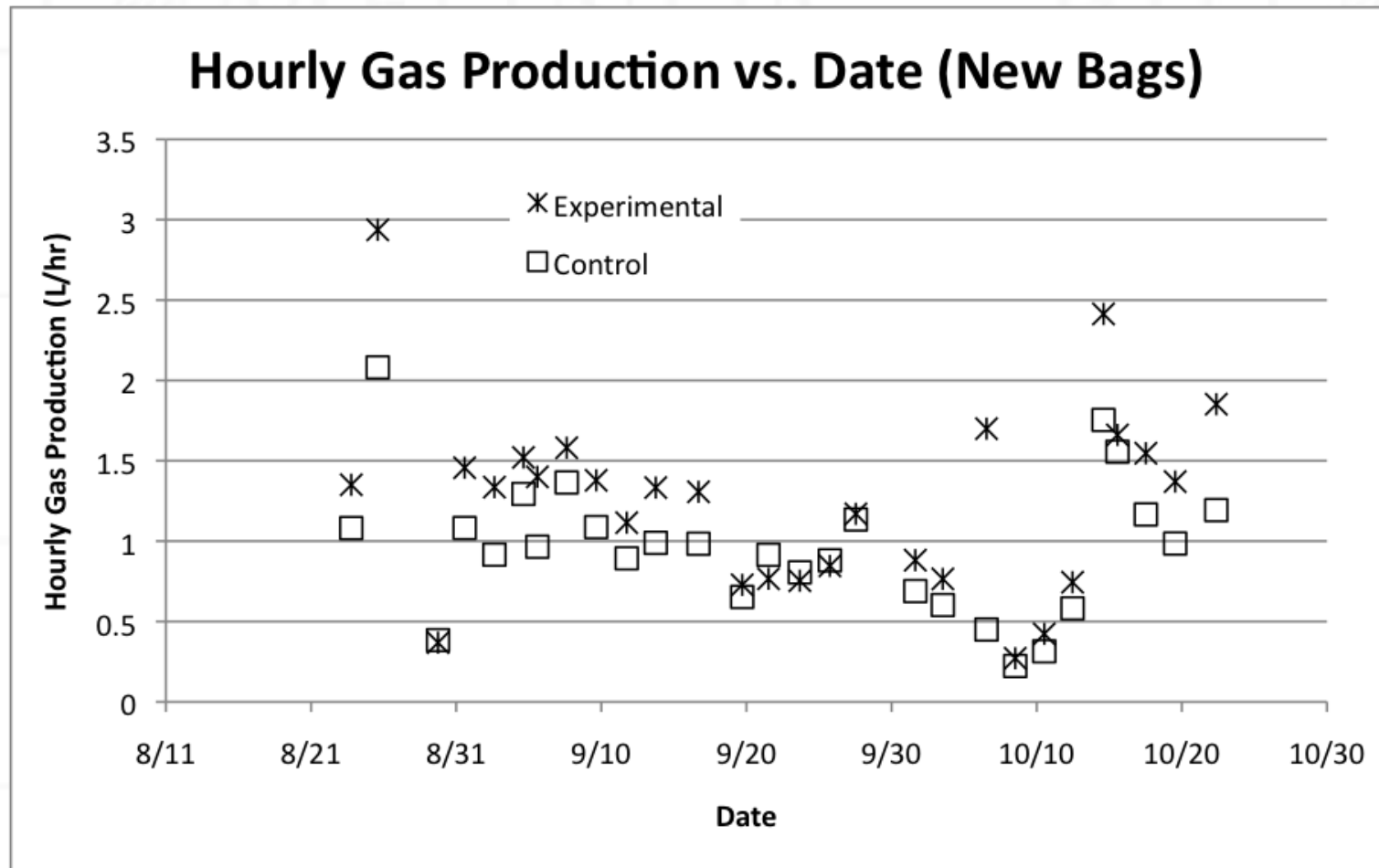
Self-Mixing Biogas Generator



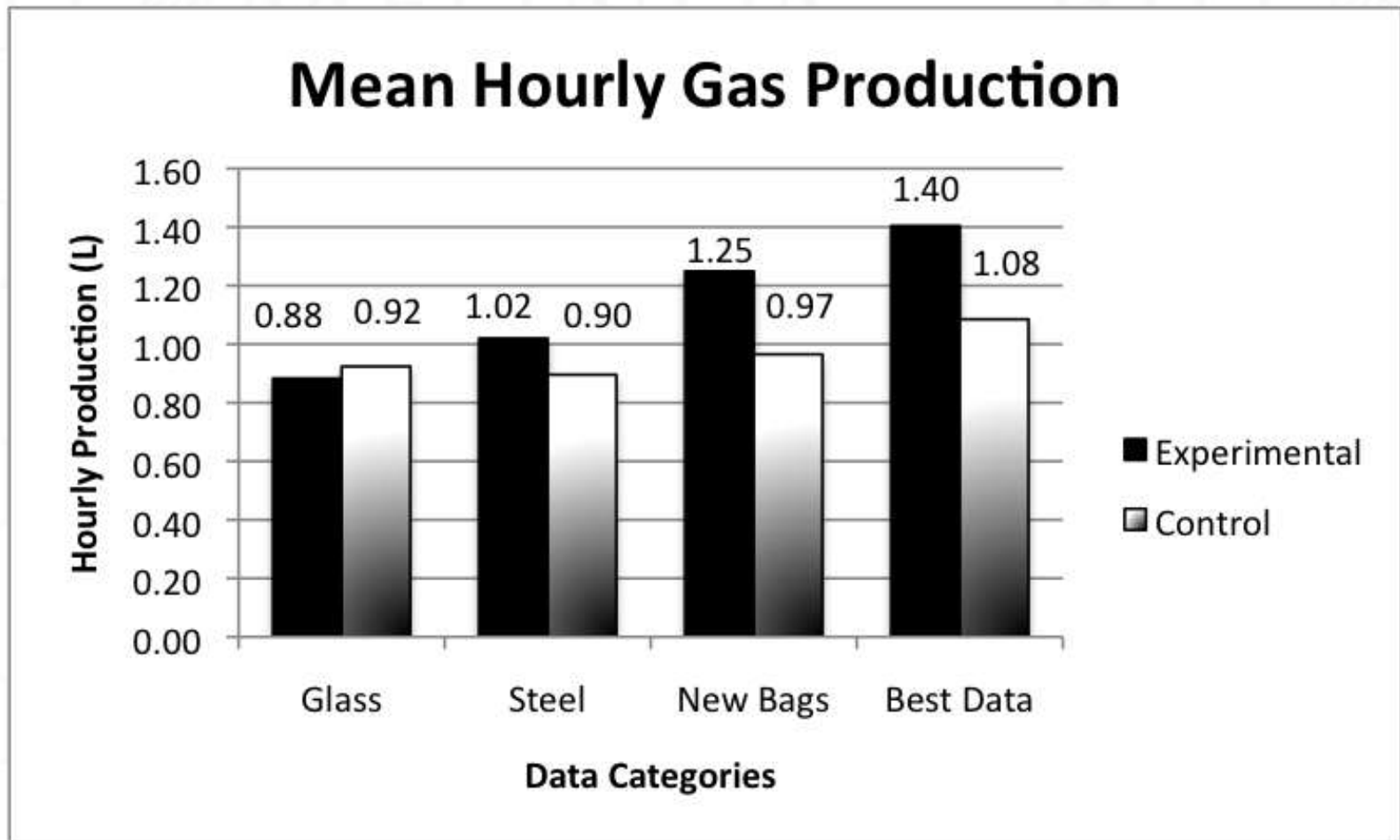
Self-Mixing Biogas Generator



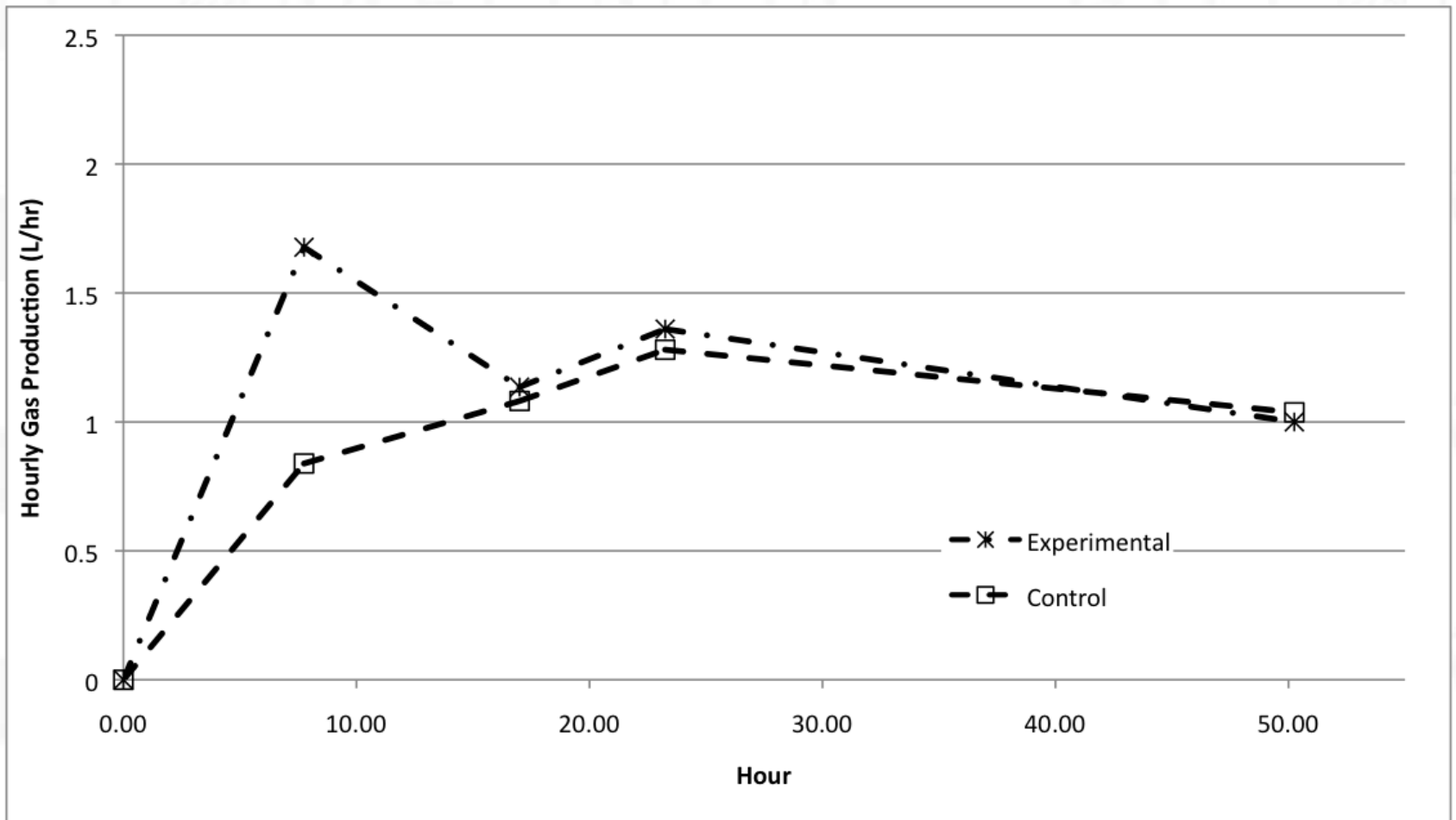
Self-Mixing Biogas Generator



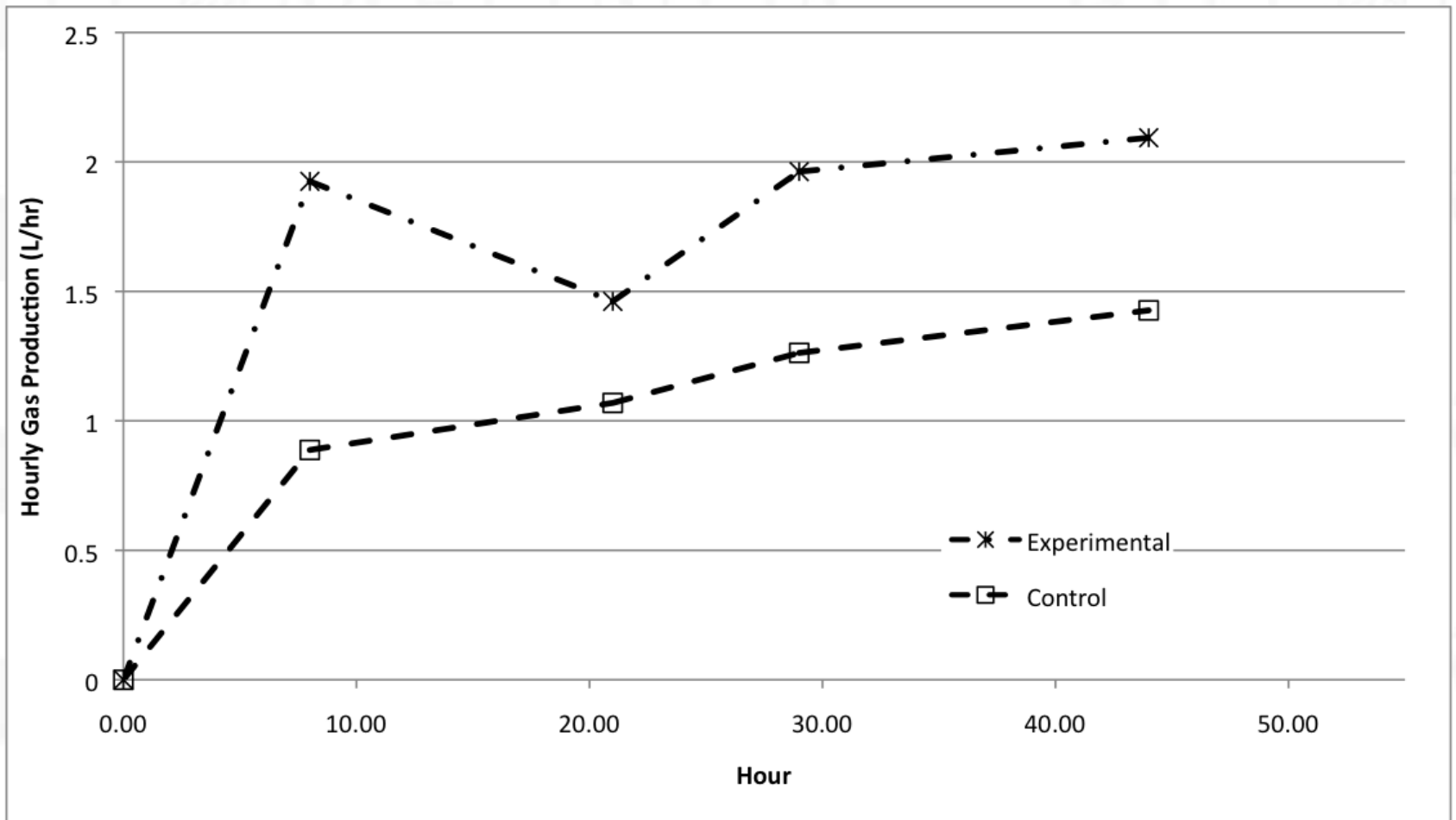
Self-Mixing Biogas Generator



Self-Mixing Biogas Generator



Self-Mixing Biogas Generator



Self-Mixing Biogas Generator

- Next Steps
 - Full-Scale Prototype
 - Improved gas production measurement
 - Apply more active feed
 - Viscosity stress test
 - Beta Testing
 - Madagascar, Kenya, China
 - Finalize Go-To-Market Plan
 - Licensing strategy

