



# WE SOLVE ODOR!

Control H<sub>2</sub>S – Increase Biogas Production  
 Increase Solids Destruction/Increase Capacity/Control Foam in Your Digester



DAIRY MANURE & FOOD WASTE

## ANAEROBIC DIGESTION BREAKTHROUGH



MICHIGAN STATE UNIVERSITY



Michigan State University  
 Anaerobic Digestion Research Education Center (ADREC)



MSU ADREC anaerobic digest specialists carried out an independent third-party lab scale study to confirm beneficial impact of adding BIOLOGIC™ SR2 to Biomethane Methane Potential jar test reactors. Control (No SR2) tests and SR2 treated tests were carried out in triplicate to ensure valid results.

### The Challenge

To determine if low volatile solids destruction efficiency could be improved and if biogas generation rates could be increased above industry standard in digesters treating dairy manure combined with liquefied food waste.

### SciCorp Plan and Implementation

SciCorp anaerobic digestion specialist engineers:

- ✓ Will review performance data and operation challenges faced by operators.
- ✓ Will work with biogas digester operators to optimize dosage of SR2 to maximize performance.
- ✓ Will develop a 3-month trial to treat the entire anaerobic digester system.
- ✓ Optimize dosage of SR2 to maximize performance.

### Success Achieved

Volatile destruction efficiency of reactors treated with BIOLOGIC™ SR2 improved from 32% (not treated with SR2) to 45% an increase of 41%

Specific Biogas Generation per Kg/VS added to the reactors increased from 427 ml/gm VS to 692 ml/gm VS an increase of 62%

Methane content of biogas 64 – 75%

Results achieved in 30-day trial

Results achieved with BIOLOGIC™ SR2 dosage rate varying from 25 – 100 ppm



### Implications for Full Scale Biogas Digesters

- Significant improvement in VS destruction efficiency thereby reducing volume of solids in digester effluent requiring dewatering disposal thereby reducing operating costs
- Increased capacity of existing digesters to take higher organic loads
- Other benefits realized using SR2 are reduction of ammonia foam and formation of struvite's

### Financial Impact

- Dramatically increased biogas generation resulting in more electrical power and increased revenue for RNG
- Increased revenue based on improved efficiency and increased capacity
- Reduced costs due to lower waste solids
- Translates into higher profitability (higher ROI)
- Lower carbon emissions and lower environmental impact

[WWW.SCI-CORP.NET](http://WWW.SCI-CORP.NET)

Contact our Engineers:  
 1-800-897-2053 [contact@scicorp.net](mailto:contact@scicorp.net)

