

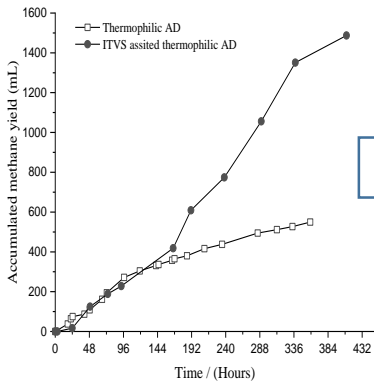


- Risk of water pollution
- Nutrients Partially utilized by crops



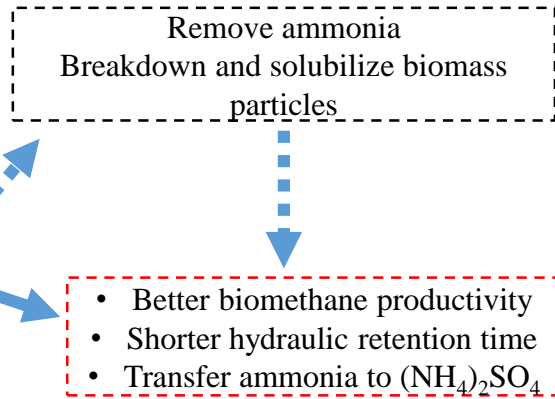
- Process inhibited by high ammonia of liquid swine manure
- Long hydraulic retention time

A new strategy



Input: mixture of liquid swine manure + biomass

ITVS-thermophilic AD



Lab scale in-line Intermittent Thermal-Vacuum Stripping (ITVS) assisted thermophilic Anaerobic Digestion (AD) process and system



Key processing parameters

- The pattern of intermittent stripping
- Salinity
- Ammonia
- C: N ratio
- Organic Loading rate
- Volatile Fatty Acids
- Biogas composition

Outcome of the Project

- Processes will be developed and investigated for conversion of liquid swine manure and biomass to biogas and N fertilizer
- Potential economic, environmental and ecological impacts of the proposed strategy will be evaluated
- Stakeholders will be presented with the research findings and recommendations for further actions
- The research findings will be used for seeking industrial partnerships and external funds for further R & D efforts