



# Bi-National Symposium on ANAEROBIC DIGESTION OF ANIMAL WASTES: PROSPECTS AND CHALLENGES

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*Organized and Hosted by:*

School of Biological Sciences, Autonomous University of Coahuila, Coahuila State, Mexico

*In partnership with:*

The College of Agricultural and Environmental Sciences and the Faculty of Engineering, The University of Georgia, USA



Although livestock manure is considered as a waste and nuisance due to its odor, emissions and nutrient losses, it is a valuable resource if managed properly. The Laguna region in Mexico ranks as the top cattle milk producer in Mexico and is also well known for its cattle meat. There are an estimated 604,700 heads of cattle, 29,844,000 chickens in the Laguna region (SAGARPA; 2008). On an average a cattle approximately weighing 650 kg produces about 20 tonnes of fresh manure/year, with an average total solids content of 14%, which equal approximately 1700 tonnes of dry organic matter available each year in the Laguna region for recovery of energy present in these resource.

Anaerobic digestion of these organic wastes can recover the carbon present in these wastes as methane, which can be used as a renewable fuel. Apart from this energy production, the nitrogen present in the cattle manure is conserved in the slurry during the anaerobic digestion and thus can be used as an excellent nitrogenous fertilizer. In spite of these advantages, the development of this technology has stagnated in developed countries, as it has to compete with the good infrastructure for the distribution of fossil fuels and electricity (IAEA, 2008). This holds true for Mexico too, as Mexico depends on petroleum for its economy. In addition, the cultural barrier in animal waste handling is also limiting its widespread use. However, the accumulation of organic wastes, environmental pollution, energy crisis, etc. forces us to reevaluate the sources and potential of alternative energy production and to find means and ways to deal with the challenges related to this alternative and non-conventional technology. The onus on promoting this environment friendly technology lies with the scientists, engineers, technocrats, leaders of the society, and governmental and non-governmental organizations.

Scientists from USA and Mexico, cattle growers association in the state of Coahuila, Durango, policy makers, representatives from Government and governmental and non-governmental organizations in Mexico will participate in this symposium. The focus will be on:

- Environmental Problems associated with animal wastes
- Sustainable technologies for animal waste management
- Basic science concepts involved in the anaerobic digestion of animal wastes
- Limitations in transferring the technology to the field
- Clean Development Mechanism and Carbon Credit
- Government Policies on animal waste management
- Case Studies



The second day of the symposium will host a field trip of site visits.

