



Table (1). The topics and presenters of the first workshop

Tuesday, August 28		
Time	Topic	Speaker
8:00-9:00	Registration	
9: 00-9:10	Welcome	Dr. S. Meredith Dean of College of Agriculture and natural Sciences (LU)
9:10-9:25	USDA/SARE program	Dr. K.B. Paul (LU)
9:25- 9:35	Introduction	Dr. H. El-Mashad (LU)
9:35-10:20	Principles of biogas production	Dr. J. Cheng (NCSU)
10:20-10:35	Break	
10:35-11:20	Anaerobic digesters and design	Dr. J. Cheng (NCSU)
11:20- 11:50	Biogas purification and utilization	Dr. J. Cheng (NCSU)
11:50-12:50	Lunch	
12:50- 1:50	Status and potential of biogas industry	Dr. J. Cheng (NCSU)
1:50 -2:30	Characterization and supply of bioenergy production feedstocks	Dr. R. Bayan (LU)
2:30-3:00	Anaerobic digestion and mitigation of greenhouse gases	Dr. T. Lim (MU)
3:00-3:15	Break	
3:15- 4:00	Cow power	T. Smith and J. Daniels Mid America Environmental Energy
4:00- 4:15	Farmer perspectives on alternative energy	Chris Boeckmann (LU)
4:15-5:00	Biogas project permitting issues	K. Hale and G. Fletcher (DNR)
5:00 - 6:00	Dinner	
6:00-6:30	Anaerobic codigestion of organic materials	Dr. H. El-Mashad (LU)
6:30	Panel discussion	
Wednesday, August 29		
Time	Topic	Speaker
8:30-9:15	Solar energy fundamentals	Dr. V. Nelson (West Texas A&M Un.)
9:15-10:00	Basics of photovoltaic systems	Dr. S. Barizuddin (LU)
10:00-10:15	Break	
10:15-11:00	Photovoltaic and concentrating solar power	Dr. V. Nelson (West Texas A&M Un.)
11:00- 12:00	Production and anaerobic digestion of microalgal	Dr. D. Brune (MU)

	biomass	
12:00 -1:00	Lunch	
1:00- 2:00	Small wind systems	Dr. V. Nelson (West Texas A&M Un.)
2:00-3:00	Solar heating systems	Dr M. El-Dweik (LU)
3:00-3:15	Break	
3:15-4:00	Economics of biogas and solar energy	Dr. H. Gedikoglu (LU)
4:00– 5:00	Example of application of solar energy system on farms	Dr. W. L. Ambrose
5:00-5:15	Bioenergy on line curriculum	D. Day (MU)
5:15- 6:15	Dinner	
6:15- 6:30	Safety issues of biogas and solar energies	Drs. S. Barizuddin and H. El-Mashad (LU)
6:30	Panel discussion	
Thursday, August 30		
Time	Topic	Speaker
8:30-11:30	Field trip	
11:30- 12:30	Lunch	
12:30-1:30	Hands-on training on operating and monitoring the performance of an anaerobic digester and solar energy system Demonstration of anaerobic digester operated with solar energy	Drs. M. El-Dweik and H. El-Mashad (LU)
1:30-2:00	Demonstration of a small scale biomass pyrolyzer	Dr. R. Bayan (LU)
2:00- 2:30	Post-workshop survey	
2:30	Adjourn	