

ABSTRACTS

Research Title : Bio Gas production from biomass remains in raceway park at Amphawa district, Samutsongkhram province.
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The purpose of this study is to produce the biogas to use as cooking gas in household from the biomass in the agricultural are of Amphur Amphawa. The community involvement in this study were consist of 4 procedures, (1) Construct the community participation and choose the pilot area for the biogas production. (2) Gas sampling were collected 5 points as Baunangli sub district which were chose as a pilot area for this study. (3) Sediment were collected to mix with cow feces at various ratio to produce biomass . The optimum ratio were suggest to the community for the biogas production. (4) Evaluated the satisfaction in the community. It was found that 65% were chose Baunangli sub district as a pilot area due to vast area of fruits patch. From the 5 point of sediment were found that gas collecting inside the sediment at 50.52 L/m^2 and methane gas were found at 62-65 % by volume. The optimum ratio for the biogas production is 1:1, (sediment cow feces) at the production rate of 56 litre. Biogas production in the pilot plant at 4000 L tank can produce biogas at 56.4% for 40 consecutive days. The community were satisfy at 90% in participation in this project and 82% want to continue this project to produce biogas in their house hold. Mostly 85% of the community were more understand the utilization of the biogas.

Keywords : Biogas , Biomass remains , raceway park.