

Nitithorn Toemthanam. 2006: Biogas Technology Adoption in Dairy Cattle Farming Waste Management: A Case Study of Farmers in Nhong Kratoom Sub-district, Kamphaeng Saen District, Nakhon Pathom Province. Master of Science (Agriculture), Major Field: Agricultural Extension, Department of Agricultural Extension and Communication.
Thesis Advisor: Associate Professor Am-On Aungsuratana, Ph.D. 245 pages.
ISBN 974-16-2797-1

The objective of the study were to examine 1) some personal background of dairy cattle farmers resided in Nhong Kratoom sub-district, Kamphaeng Saen district, Nakhon Pathom province, 2) dairy farming system and condition, 3) their knowledge in biogas building, 4) factors affecting adoption and non-adoption of biogas technology, and 5) their constraints and recommendations in biogas technology. Studied samples were 66 dairy cattle farmers resided in Nong Kratoom sub-district, Kamphaeng Saen district, Nakhon Pathom province. Semi-structure interview schedule was used to collect data. Descriptive statistics were percentage, arithmetic means, and standard deviation. Inferential statistic to testing hypothesis was Pearson product moment correlation coefficient.

The findings revealed that average age of the farmers was 44 years old. Major occupation was dairy cattle farming while minor occupation was field crop. Average income was 588,816.2 baht per year. Average land tenure was 2.7 rai (0.432 hectares). Most media perception was neighbor. Average dairy cattle farming experience was 7 years. Average land in dairy cattle farming was 1.8 rai (0.288 hectares). Average cow number was 22 heads per farm. Average labor force was 2 persons per household. Average dairy yield was 85.21 kilograms per farm. The dairy cattle were held in free barn or stable. Source of capital was their own. Average asset was 11,285.3 baht per head. Most own raw materials were maize products. Most inside community farm input was artificial insemination, while most outside community farm input were public water and electricity. Price of farm input was mostly determined by the merchants. Average dairy cattle farming income was 430,895 baht per year. The raw milk price was determined by Dairy Cattle Farming Cooperative. Most source of raising knowledge was government officers. Trend of dairy cattle farming was raising. Most found waste management was rest in well before release out of farm and selling waste. Almost of farmers had low level of biogas building knowledge. Their adoption of biogas technology for most four steps were in the evaluation stage. Recommendations were 1) Providing continuity biogas technology knowledge development towards training courses, field study, academic discussion and local media; 2) Promotion intensive maize cultivation and artificial insemination; 3) Promotion of group building for farm input and farm products bargaining; 4) Providing more channel for farm products selling and processing for value added; and 5) Appropriate training course should be provide in the villages over May-August.

Nitithorn Toemthanam

Student's signature

Am-On Aungsuratana 9, 10, 2006

Thesis Advisor's signature