

ABSTRACT

Aim: The study examines socio-economic factors influencing adoption of feed based dairy technologies among smallholder farmers in Ekerenyo Sub County of Nyamira County. This is occasioned by lack of proper understanding of factors influencing adoption of feed based dairy technologies which has resulted in lack of competitiveness in the dairy industry despite efforts by public, private and non-governmental players to generate and disseminate technologies.

Study Design: The study employed a descriptive survey research design involving quantitative data.

Methodology: The target population was small scale dairy farmers estimated at 600 in Ekerenyo Sub-County. The sample size consisted of 199 drawn from individual farmers, farmers groups and key informants identified using stratified sampling procedure. Data was analyzed using descriptive and inferential statistical techniques like chi-square, frequency distribution and measures of central tendency using Statistical Package for Social Sciences (SPSS) version 22 and Microsoft Excel 2010. The yes or no dichotomous was used to measure adoption.

Results: Technologies with low adoption included fodder conservation (hay and silage making), Total Mixed Rationing and home-made ration formulation. On the other hand, technologies with medium adoption include mineral and concentrate supplementation, Tumbukiza establishment and legume establishment. Technologies with highest adoption rates were protein supplementation and use of feed structures/equipment. The results revealed that the level of adoption of feed based technologies by smallholder farmers is still unsatisfactory. It is highly dependent on family and land size, level of education, monthly income, labour availability, social exposure and participation, herd size and experience. Technology adoption rates decreased significantly with involvement in non-farm activities. There was no statistically significant difference in adoption with gender of household head.

Conclusion: There is need to enhance smallholders access to education, land ownership, labour availability and social participation. Further research is needed to find out innovative approaches that can uplift smallholder farmers' adoption of feed based technologies.

Keywords: Adoption, feed based dairy technologies, smallholder dairy farmer.