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Adoption of Dairy Farming Technologies under Small Holder Farming System in Egypt

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Abstract

Milk production in Egypt is heavily dependent upon smallholder production. Smallholder production is under-developed with low levels of hygiene and productivity. Fresh milk is often sold unpasteurised to the public either directly from producers, via informal markets or through dairy farmer cooperatives. Several technological interventions and development projects consist of breeding, nutrition and milk quality were implemented for improving the dairy sector in Egypt in general and in Upper Egypt in particular. A field survey using a pre-tested questionnaire was conducted with 80 households in three selected villages of El Menia governorate, located in Upper Egypt, aimed to investigate the potential impact and the constraints of farmers' adoption of such dairy technologies. Bio-economic data were collected and submitted to cost —benefit analysis. Findings revealed that 82.68 % of livestock species in the surveyed area were cattle. The average herd size is 7.33 ± 3.94 head. Based on the estimates given by respondents, female cattle gave birth every 12.17±1.13 months and stayed on lactation for 5.48±1.29 months, giving daily milk yield of 4.97±3.13 liter. The highest amount of cost was spent for feeding and estimated as 78.9 % of the total variable cost. The average costs of production of one liter of milk, when his family labour costs are excluded, were LE 2.51. The average prices received per one kg cattle raw milk sold was LE 2.75±0.30. If family labour costs were included, the total costs will likely to exceed milk income and resulting in negative profit margins for producers.Breeding technology increased profit/cow by 28.27 %. On the other hand, nutrition technology decreased cost/cow by 16.30 %. The study concluded that decreasing number of bacteria in milk gave significant positive impact to raw milk prices sold. However, the adoption of milk quality technology was poor (39.4 %). An important reason is that adoption is constrained by many of household and farm characteristics

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