ABSTRACT

Agricultural innovation adoption is fundamental in increasing incomes and food output in developing countries. However, the factors that influence farmers' decisions to adopt innovations in underutilized crops are not well-documented. Underutilized crops like finger millet have been an alternative form of sustenance for resource-poor farmers especially in arid and semi-arid areas in Kenya. They are more nutritive and resilient to environmental extremes and harsh weather conditions than common crops like maize. The study presented sought to investigate factors that facilitate or impede the probability and level of use of different innovations (improved varieties, conservation tillage, integrated pest and weed management, and group marketing) on the production and marketing of these crops. A multi-stage sampling technique was used to survey 384 finger millet producers in Elgeyo-Marakwet County, Kenya. The study employed a multivariate probit to model simultaneously the interdependent adoption decisions of finger millet farmers and an ordered probit to determine the level of adoption. The results reveal that plot size, off/non-farm income, household credit, and extension contact positively influence the decision to adopt and the level of adoption. Technical training positively affects the level of adoption but negatively influences the probability of adopting some innovations. Awareness of these factors could allow the development of strategies, policies, and plans to increase the uptake and sustenance of agricultural innovations on the production and marketing of finger millet and could, consequently, contribute to the food security and incomes of finger millet farmers through enhanced productivity and marketing of the crop.

Key words: Agricultural innovations, adoption, underutilized cereals, smallholders, Kenya.