

Abstract

A survey was conducted to assess the performance indices of frame hive beekeeping and the traditional technology in Kenya. The overall objective was to investigate the performance of frame hive technology of beekeeping relative to traditional hives in Kitui County, Kenya. The specific objectives were to establish the factors responsible for the adoption rate of frame hives within selected beekeeping groups in Kitui County and to compare honey production and household incomes among beekeepers using frame and traditional hives. Data were collected from four sites of Mulundi, Kasaala, Waita and Kyuso Locations of Kitui County. Systematic random sampling was applied to select 30 households per site giving a total of 120 households. Sixty nine out of 120 respondents, representing 58% were beekeepers, an indication that beekeeping was an important socio - economic undertaking in the area. Sixty five percent of the beekeepers relied on fixed combs, traditional, log hives, while 35% used modern technology with mainly Langstroth hives. 20% of modern beekeeping cited high yield, 17% gave easy to access and monitor the hive and 15% mentioned improved quality of products as reasons for choosing frame hives. For traditional hives, beekeepers cited affordability (29%), environment friendly (18%), easy to construct (15%) and low maintenance at 9%. The results revealed that honey production was high with traditional hives compared to Langstroth hives hence; beekeepers using traditional methods earned high incomes than those with modern technology. Further analysis using binary logistic regression indicated that gender of a household head, size of a household, size of land and access to extension services influenced the adoption of beekeeping technology. From the findings of this study, it was recommended that focused extension training be provided so that beekeepers can acquire necessary skills on bee management. Packages targeting women and youth need to be developed in an effort to encourage modern beekeeping by these groups