ABSTRACT


The study was aimed at analysing the level of knowledge of the coconut growers, the extent of adoption of recommended technologies, farmers' level productivity of coconut and the characteristics contributing to these aspects. This extensive study encompasses multidimensional methods of investigation, involving a major survey, situation analysis on product diversification, case studies, expert interviews, rapid rural appraisal and analysis of secondary data. The major survey was conducted in Alappuzha and Palakkad districts of Kerala and Coimbatore and Kanyakumari districts of Tamil Nadu, covering a total number of 200 coconut growers.

Majority of the coconut growers possessed a medium to high level of knowledge in Coimbatore and Alappuzha, whereas it was medium to low in Palakkad and Kanyakumari. The level of adoption was medium to low in all the four districts. Majority of the holdings had low to medium productivity in all the four districts. The results of the survey as well as the observations from case studies revealed a higher level of adoption for traditionally followed practices, when compared to modern technologies. Rather, the appropriateness of some of the modern technologies have been rated as highly appropriate by the adopted farmers.

The four districts varied significantly in terms of the levels of knowledge, adoption, productivity and all independent variables other than education, farming experience, perception on planting and cultural management and media utility.

The results of the correlation studies revealed a significant positive relationship of irrigation and perception on genetic quality of palms with knowledge, adoption and productivity in all the four districts as well as in pooled data. Inter correlation among knowledge, adoption and productivity was positive for all the four districts and pooled data.

Results of the step-wise regression analysis revealed that education, occupation, size of holding, perception on planting and cultural management, moisture conservation, perception on soil fertility management, perception on genetic quality of palms, incidence of pests and diseases, media utility, extension orientation, labour utility, investment index and appropriateness of technology contributed 72 per cent variation in the level of knowledge. Step-wise regression further revealed 84 per cent of the variation in adoption
due to six variables namely cropping intensity, perception on planting and cultural management, moisture conservation, perception on soil fertility management, dependence on agriculture and knowledge.

The results based on step-wise regression further revealed that 69 per cent variation in productivity of coconut was contributed by eight variables such as cropping intensity, perception on planting and cultural management, moisture conservation, perception on genetic quality of palms, incidence of pests and diseases, dependence on agriculture, investment index and perception on market infrastructure.

The overall results of path analysis revealed that perception on appropriateness of technology, perception on planting and cultural management, perception on genetic quality of palms and media utility, which possessed high direct effects, maximum indirect effect and maximum number of indirect relationships had high impact on the level of knowledge of coconut growers.

The most important factor that contributed much to adoption was knowledge in terms of its direct effect, positive indirect effect and maximum number of indirect contributions through almost all other variables. Apart from the very high direct effect by knowledge, several other factors like extension orientation, media utility, perception on soil fertility management, planting and cultural management, genetic quality of palms, appropriateness of technology and coconut promotion strategies, investment index, personal supervision of crop, incidence of pests and diseases, moisture conservation, irrigation and size of coconut holding were found to have substantially high indirect effects, which were again routed through knowledge.

Perception on genetic quality of palms emerged as the most contributing factor to productivity directly as well as indirectly. Investment index, dependence on agriculture, moisture conservation and perception on planting and cultural management were enhancing the productivity directly as well as indirectly, while knowledge, adoption, extension orientation, perception on soil fertility management and irrigation were highly contributing through their indirect positive effects. Incidence of pests and diseases was found to reduce the level of productivity through its direct and indirect negative effects, followed by perception on appropriateness of technology and cropping intensity.

Genetic potential of the palms emerged as the crucial factor in deciding the productivity of coconut from the multidimensional analysis.