Abstract | Information communication Technology (ICT) are useful for retrieving latest knowledge, quick dissemination of information to livestock holders. The most preferred information which is effective in understanding should be in local language. The present study was planned to study the symbolic adoption of improved dairy farming practices (IDFPs) through Multimedia Module in Krishnagiri district of Tamil Nadu. Ninety respondents were identified from six randomly selected villages. The respondents were exposed to prepared multimedia DVD module on IDFPs and symbolic adoption of IDFPs were assessed. The study revealed that majority (55.56%) of the respondents belonged to young age group having marginal land holding with mean milk production was as 12.44 liters per day. The result state that progressive farmers, friend and family members were most important localite channels to update the knowledge of IDFPs. The symbolic adoption of various breeding and feeding practices indicates that 88.90 and 78.91 percent of dairy farmers decided to adopt the practice of artificial insemination and green fodder feeding. The result shows that after exposure to IDFPs 76.70 and 82.20 percent dairy farmers shown willingness to adopt the practice of timely vaccination and isolation of sick animals which clearly indicating the effectiveness of multimedia module.

Keywords: Dairying, Improved dairying farming practices (IDFPs), multimedia and symbolic adoption

Introduction | In modern world knowledge is being termed as power and information as the key element of knowledge base. Today, development of an individual or a society is based on access to information. Information and Communication Technology (ICT), being the major source of information & knowledge, had shown the potential to modify the social and economic development of livestock, agriculture, and rural artisans in India. The information access which is increasing at the rate of 50 percent per annum and improved communication are certain to have significant effects, most of them positive on the livestock outreach services along with other rural services (Ali, 2011). Unfortunately, the information and communication technologies favour the richer section or the urban areas. On the other hand, the rural sector is poorly reached by this scientific and technological advancement. Empirical evidences indicate that livestock is an important component of the agriculture system, providing an additional source of income and nutritional cover to a large section of the rural population, particularly the disadvantaged and poor households (Birthal and Ali 2005; Ravikumar and Chander 2006, Singh et al., 2007). The distribution of livestock, as a liquid asset to poor families, is more egalitarian as compared to land (Taneja and Birthal 2004). However, the recent trend in livestock sector growth suggests that in order to meet the emerging demand for livestock based products there is a need to reorient the production system by enhancing the efficiency and creating quality consciousness. There is vast variety of information available in the form of communication media but farmers usually need information in local language, effective in understanding and can easily be used by illiterate as well as literate farmers. Keeping in view the present study entitled "Symbolic Adoption of Improved Dairy Farming Practices by Dairy Farmers through Multimedia Module" was conducted with the objective to study the socio personal and economic profile of dairy farmers, to study the information seeking behavior of farmers, to develop a multimedia module and to measure the symbolic adoption of IDFPs.
Methodology

Keeping in the view the objective the present study was conducted in the state of Tamil Nadu which is one among the major producers of milk in our country with the production of 7.05 million tonnes (NDDB, 2012-13). The study was conducted in purposively selected in newly formed Krishnagiri district of Tamil Nadu. Six villages were selected by simple random sampling from purposively selected Krishnagiri district. A multimedia DVD module based on Improved Dairy farming Practices was prepared. The respondents were introduced to the educational DVD (pre exposure) in the aspects of breeding, feeding, health care management and general management. The post-exposure data was collected immediately after viewing of the video-DVD by the respondents. Before - after treatment without control group research design was used. The related data on socio economic profile, communication behavior and symbolic adoption of IDFPs was collected from 90 farmers based on the criteria that each should be having at least one milch animal and possessing DVD player and television set at the time of investigation. The data were collected with the help of a well-structured interview schedule and the data were analyzed using suitable statistical tools.

Results and Discussion

Socio personal and socio economic profile of dairy farmers

The study revealed that majority (55.56%) of the respondents belonged to young age group (Table 1) i.e. up to 35 years of age followed by the category of middle age group of (36-50 years) and old age group (> 50 years) which accounts for 35.56 percent and 8.89 percent respectively. A significant chunk of population (87.00%) had acquired primary and above education and only 8.89 percent were illiterate. The dairy farmers of the state have low social participation (52.22%) in cooperative societies, Government & private organization, NGO, youth club, SHGs and other cooperatives societies.

The land holding capacity of the respondents revealed that majority of respondent belongs to marginal (51.22%), small (31.11%) and semi medium (4.44%) land holding category, whereas 13.33 percent of the respondent were landless farmers. The herd size of dairy farmer’s state that about 43.00 percent of respondents possessed small and medium herd size. The mean milk production was calculated as 12.44 liters per day. The average milk production was quite good as 50.00 percent of the respondent fall in large and medium category of milk production.

Information seeking behaviour

Various studies had revealed the positive relationship between the communicational variables (personal localite, personal cosmopolite, impersonal cosmopolite and innovation proneness) and knowledge on dairy farming practices. Hence, these communication variables were studied to find out the communication behaviors of dairy farmers. It was observed that progressive farmers, friend and family members were most important localite channels to update the knowledge of dairy farmers in the field of IDFPs. The result of Table 2 revealed that majority (61.00%) of farmers were in high category of personal localite, 22.23 percent were in low where as 16.66 percent in medium category of personal localite source of information. These sources as well in reach of the farmers.

Among the cosmopolite source of information it was found that SMS, LSA/Stockman and Veterinary Officers were most important channels to update the knowledge. The analyzed data revealed that 47.78 percent of farmers in medium, 46.67 percent in low and 5.55 percent in high category of personal cosmopolite channels respectively. The reason that could be ascribed to this is that most of the dairy farmers were educated above middle level and had regular contacts he field officers like SMS, stockman and Veterinary officers of the area. The important impersonal cosmopolite sources include Television, Newspaper, Radio and Mobile phones. The result shows that 87.78 percent of the farmers had low category exposure to impersonal cosmopolite as these channels were not properly utilized to update the knowledge in the aspect of improved dairy farming practices. This could be because of the reasons that the programmes related to IDFPs are less broadcast through these medium resulting in low exposure of farmers. Ali, (2011) state that farmers perceive quality of livestock information being provided to be “average” and want higher quality and more reliable information on production activities. The dairy owners had high information need regarding health care practices of dairy animal (Tiwari et al., 2008).

The finding of innovation proneness indicates that about 61 percent having innovation proneness more than the mean value which reflects respondents was ready to accept the changes in dairying. The result further state that 38.89 percent of the respondents were having low and high level whereas 22.22 percent (Table 2) were found in medium category of innovation proneness.

Symbolic Adoption on Improved Dairy Farming Practices

Symbolic adoption represents the mental preparedness for the adoption of IDFPs by the dairy farmers. Data representing thirteen dairy farming practices (Table 3) for their symbolic adoption are presented in table-3.

1. Breeding practices: The symbolic adoption of various breeding practices like artificial insemination, service period, pregnancy diagnosis and proper treatment of repeat breeder...
was studied. The result presented in table-3 indicates that a maximum percentage (88.90%) of overall dairy farmers decided to adopt the practice of artificial insemination whereas 11.10 percent of dairy farmers have not made any decision. In case of practice like maintaining service period after calving and pregnancy diagnosis 72.00 and 74.40 percent of dairy farmers of IDFPs area decided to adopt this practice as per the advice given by veterinary doctor. The dairy farmers are highly willing to adopt the (86.70%) practice of treatment of repeat breeder by veterinarian to make their animal conceive. The result shows the effectiveness of multimedia module as stated by Jayakumar and Manoharan (1999) in their study also observed that about two-thirds of the total respondents had symbolically accepted to adopt the technology they learned through video education.

1. Feeding: The result shows that after exposure to IDFPs 60.00 percent dairy farmers decided to adopt the practice of balance feeding to their animals which id helpful in enhancing the production. The practice of feeding green fodder to the dairy animal was symbolically adopted by 78.89 percent as this is helpful in minimizing the cost of milk production. Majority of respondent (60.00 %) had decided to add mineral mixture in the feed as the practice is helpful in overcoming the infertility problem in animals. The impact of multimedia (Instructor Controlled Interactive Video) was also observed by Jayakumar and Manoharan (2002) and observed significant gain in knowledge after exposure of farmers to interactive video.

2. Health: The symbolic adoption of timely vaccination, isolation of sick animals and treatment of animal against infectious disease was 76.70, 82.20 and 77.80 percent. The less percentage in vaccination is due to the lack of testability among the farmers. Similar finding were reported by Vidhya et al., (2010) from Tamil Nadu state that high overall adoption (96.00%) was reported in health care practices while adopting scientific dairy farming practices.

3. Management: The practice of feeding colostrum to
the new born calf within 24 hours after birth was symbolically adopted by 91.10 percent dairy farmers of IDFPs and only 8.90 percent dairy farmers had not decided to adopt. There was a great influence of cleaning the shed as 92.20 percent dairy farmers of IDFPs decided to adopt this practice. Out of all the practices undertaken maximum number of dairy farmers decided to adopt cleaning of shed. 60.00 percent of dairy farmers had decided to symbolic adopt the practice of dehorning the calves within 15 days of calving. The findings of symbolic adoption in the aspect of Treatment of sick animal (60%), Isolation of sick animal, Proper vaccination (62%), Cleaning of shed (48%) and Dehorning of calves (30%). Kadian and Gupta (2006) also reported that Video Compact Disc (VCD) was found to be most effective method for imparting knowledge related to dairy calf management practices among farmers.

### Conclusions

The study concludes that the multimedia module was highly effective in enhancing the willingness to adopt the improved
dairy farming practices. The dairy farmers of young age with adequate education and social participation gained more knowledge resulting in more symbolic adoption of practices. The utility of multimedia module can also be realized as more than 85.00 percent of respondent farmers decided to adopt practices like artificial Insemination, colostrum feeding and cleaning of shed. Therefore it is need of the hour, to attract and enhance the knowledge of young and middle age people in every aspects of dairying using ICTs tools. The module can be multiplied and supplied to the farmers for quick diffusion of scientific practices of dairy farming from research field to the dairy stakeholders.

References