**Impact of Training Programmes of Krishi Vigyan Kendra (KVK) for Socio-economic Development of Weaker section Farmers in Cuddalore district**

**ABSTRACT**

Researchers at Krishi Vigyan Kendra (KVK) in Cuddaloredistrict, Tamil Nadu, examined the efficacy of their trainings using a sample size of 100 from the adopted villages chosen via proportional random selection of Weaker section Farmers. Personal interviews were conducted with the sampled subjects utilizing a pre-tested planned schedule. According to the training results, social recognition had the highest efficacy score, followed by technology adaptation rate, knowledge and skill level, economic position, output, and enhancement of livelihood.The rate of technology adoption shows notable discrepancies among various training categories. For instance, "Value Addition in Cashew Apple" and "Importance of Organic Farming and Integrated Farming System" display remarkable effectiveness, boasting adoption rates of 100% and 96.67% respectively. In contrast, categories like "ICM, INM, IPDM in Groundnut" and "Integrated Weed Management Practices" demonstrate lower effectiveness, suggesting a requirement for reassessment or enhancement of training methodologies to elevate technology adoption rates.

**Keywords**: Impact, Training programme, Enhance livelihood, Weaker section socio-economic development, Krishi Vigyan Kendra, Cuddalore

**INTRODUCTION**

Food security in the country can be improved with the help of agricultural innovations and the spread of new technology, which also give farmers an edge over more conventional farming and contribute to rising living standards. Farmers cannot reach their full potential unless they have access to cutting-edge tools, feed, machinery, and information for all their enterprises. To address this issue, KVKs in the Cuddalore district have provided training in a variety of agricultural technologies to the district's most poor farmers. The true bearers of cutting-edge technologies, systems educate farmers and provide vital inputs.

The farmers in Cuddalore district, located in the southern Indian state of Tamil Nadu, face various problems and challenges that affect their livelihood and agricultural practices. Socio-economic development of weaker section farmers in Cuddalore district of Tamil Nadu has been a critical focus area for the government and various organizations to promote inclusive growth and upliftment of marginalized communities through KVK’s training programmes. Cuddalore district, known for its agriculture-based economy, is home to a significant number of small and marginalized farmers who face various challenges in terms of access to resources, technology, and market opportunities. Initiatives aimed at improving their socio-economic conditions have been implemented to address these challenges. These farmers, belonging to marginalized communities and backward classes, have historically faced numerous challenges that hindered their progress and well-being. However, concerted efforts have been made to address these issues and uplift their socio-economic status. Please note that specific circumstances may have changed since then, but here are some common issues they may encounter.

Agricultural progress is impossible without constant, dedicated training efforts. As a company progresses through its various phases, strategy, and clients, so too are the training requirements for its employees. Training entails planned experiences in which individuals can gain the knowledge and abilities they need to do a task successfully (Kulkarni and Nikhade, 1996). By increasing farm productivity, income, and employment through the application of agricultural innovation generated at the research station, KVK trainings are helping to improve the lives of farmers, farm women, and rural youth in the cuddalore district's outlying areas (Akinsorotan and Oladele, 2009). Traditionally, KVKs have provided a wide range of educational opportunities. KVKs were initially conceived as institutions that would provide young people in rural areas with the skills necessary to start their own businesses.

The farmers in Cuddalore district who are at the bottom of the economic ladder tend to have very small holdings or to have no land at all. Therefore, self-development entrepreneurship-based training programmes are organized for the weaker portion group, while training focusing on the most up-to-date technology and inputs is provided to small landholding farmers. One of KVK's responsibilities is training, which improves farmers' financial security in two ways: first, trained farmers are more effective, and second, effective farmers contribute to the expansion of the agricultural industry. But if their efficacy in terms of knowledge shift, adoption of improved practices, and restrictions experienced by trainees and trainers throughout training is not investigated, they serve little purpose. Therefore, it is crucial to investigate the impact of this training programme carefully and thoroughly on its participants and the challenges they and their instructors confront during the training process. Some criteria were expected to be adjusted to determine the degree of success. Therefore, this research aims to assess the impact of Krishi Vigyan Kendra, Cuddalore's training programmes on better crop production methods, entrepreneur development, and the quantification of each of these factors (Dubey et al., 2008).

The study's results would be an invaluable resource for KVKs as they plot out their training programmes for the future. Improved crop cultivation practice training and entrepreneurial development training can be better tailored to trainee farmers if we understand the barriers, they confront during the learning process.

**METHODOLOGY**

The study was conducted in Cuddalore district of Tamil Nadu during the year 2021 by the researchers as part of the Schedules Caste Sub-Plan (SCSP)programme under Indian Council of Agricultural Research through Agricultural Technology Application Research Institute (ATARI).Cuddalore district was purposively selected for the study. Ten adopted villages were selected purposively from Ten blocks having the maximum number of trained farmers under KVK,Cuddaloredistrict.

**Selection of Farmer**

The team members at Krishi Vigyan Kendra, Cuddalore, worked together to compile a comprehensive list of trainee farmers who had attended at least five KVK training programmes. Each adopted community had an equal number of residents selected as trainees. The ultimate sample size was 100, with respondents drawn at random from each of the weaker section farmers villages.

**Measurement of data**

Training programmes were evaluated on seven criteria, including their ability to boost participants' understanding of new technologies, their willingness to embrace those technologies, their output and earnings, their sense of pride in themselves, and their standing in the community.

Researchers created a test with questions about modern farming techniques to gauge interest in adopting them, and the timetable was designed to gauge output and productivity, among other things. Farmers' confidence in themselves was measured using a modified version of the method described by Aphunu and Otoikhian (2008). Mean and standard deviation values were used to classify the respondents.

Finally, the study employed suitable statistical tests to calculate each respondent's overall training efficacy using the formula (Kulkarni and Nikhade, 1996). To generate reasonable and reasonable inferences from the data, statistical methods such as frequency, percentage, arithmetic mean, and standard deviation were utilized.

**Data Collection**

The "Structured Schedule" was used to conduct in-depth interviews with the sampled respondents, followed by focus groups to compile the collected data. Considering the aims of the research, an interview schedule was developed to collect information from the participants. The investigators and the village leaders visited the homes and fields of the selected respondents to conduct in-depth interviews and document the participants' responses.

**Statistical analysis**

SPSS was used to tabulate and analyze the data, and the findings confirmed those of Kumar (2009), confirming the study's aims. Most respondents in the Virudhachalamtaluk of Cuddalore district, Tamil Nadu, India, had a medium degree of understanding on enhanced agricultural practices for paddy, as reported by Sidram (2008).

**RESULTS**

**Level of Knowledge on crop technologies**

KVK, Cuddalore's training facilities earned an overall score of 72.74. KVK Intervention: 91.48; Social Acceptances: 75.33; percentage of respondents whose levels of knowledge on crop cultivation practices: 74.23; Social Economics: 69.84; Technological Acceptance: 60.67; Technological Impact: 58.17; Technological Adoptions: 56.97. Despite the idea of enhanced technologies in agriculture's growing appeal among farmers, there has been little training in the methodical and scientific application of these approaches. To better equip them to cultivate their crops, farmers have been urged to participate in training programmes led by professionals in the sector. Singh and Saini, 2010 research found the same influence and trend.

$$TE= \frac{D1}{P1}+ \frac{D2}{P2}+ \frac{D3}{P3}+…+ \frac{Dn}{Pn}×100$$

Where, TE = Training effectiveness, D1, D2, D3 ...Dn refers to the total score obtained by all the

respondents on a particular dimension of items P1, P2, P3…. Pn refer to the potential scores obtainable on each dimension included in the study.

**Technology adoption**

According to Table 1, most respondents reported a high level of acceptance of enhanced technologies in crop farming, while above 40 percent reported a medium level of adoption, and 7.50 percent reported a low level of adoption. Despite having a solid grasp of improved and better crop cultivation practices, a sizeable portion of farmers in the study area were unable to fully adopt them due to the poor nature of short term/immediate returns in small farming situations and the farmers' poor economic conditions (Fig. 1). This is mostly attributable to the average degree of acceptance by farmers of these technologies. Singh et al. (2010) and Shankara et al, 2014 all found results consistent with these ones.

The technology used in cashew production was taught to 120 people, with a 55% adoption rate and 45.83% efficacy. Ninety-six people were trained in crop cultivation technologies for tomatoes and brinjal, with a 45% adoption rate and 46.88% efficacy. Exposure visitation Paddy TRRI, Aduthurai, ICM Paddy, IDM Paddy, and INM trained 141 individuals, exhibiting a 37% acceptance rate and 26.24% efficacy. Green Lively Hood training was attended by 30 individuals, with an acceptance rate of 29% and an effectiveness rate of 96.67%. Twenty-seven people were trained in ICM for cashew and value addition, with a 24% acceptance rate and an 88.89% effectiveness rate. Three hundred people were trained in ICM, INM, and IPDM in Groundnut, with a 60% adoption rate and 19.87% efficacy. Three hundred and sixteen people were trained in ICM, INM, and IPDM in pulses, with a 96% adoption rate and 30.38% efficacy.

Importance of Fodder Pellets and Production Strategies 45 participants received training, with a 20% adoption rate and 44.4% efficacy. The importance of millet cultivation 25 people were trained, with a 21% acceptance rate and 84% efficacy. 86 people were trained in better cluster bean and vegetable cowpea production practices, with a 55% acceptance rate and 63.95% efficacy. Improved seed production systems in Gingelly trained 50 people, with a 46% adoption rate and 92% efficacy. Improved paddy seed production method: 153 people were trained, resulting in a 54% acceptance rate and 35.29% effectiveness. The Integrated Farming Cluster Village trained 204 people, with 89% acceptance and 43.63% effectiveness.

Management of Kuruvai Rice Nursery 121 people were trained; the adoption rate was 54%, and the efficacy was 44.63%. Plant nutrient deficits, their treatment, and vermicomposting techniques 60 people were trained; the acceptance rate was 37% and the efficacy was 61.67%. Fallow rice pulses Varieties of black Gramme and seed production 100 people were trained, resulting in a 47% adoption rate and 47% efficacy. Techniques for producing seeds for pulses, oilseeds, and paddy were taught to 155 people, who showed 34.19% effectiveness and 53% acceptance rate.

Technology for producing seeds for the development of vegetables, groundnuts, and paddy 60 people were trained; the adoption rate was 26% and the efficacy was 43.33%. Paddy Samba Varieties from SRI 50 people were trained, and they were 78% effective and 39% adopted. 242 people were trained in both natural farming and the integrated farming system, with a 24.38% effectiveness rate and a 59% adoption rate. Fertilizer use in balance: 68 individuals trained, 31% of whom adopted the practices and 45.59% of whom were effective. Twenty people were educated to handle crop physiological disorders, with a 19% acceptance rate and a 95% efficacy rate. The Integrated Farming System, which trains 30 people and has a 29% adoption rate and 96.67% efficacy, is extremely important.

The significance of evaluating water and soil 45 people were trained; their efficacy was 77.78% and their acceptance rate was 35%. 137 people were educated in INM for flower crops in Aladi village, with a 37% acceptance rate and 27.01% effectiveness. Integrated use of fertilizers and nutrient management 20 people were trained, and their 90% efficacy and 18% adoption rate were achieved. Handling Complicated Soils 50 people were trained, and they were 88% effective and 44% adopted. 135 people were trained in soil limits and management, with a 43% adoption rate and a 31.85% efficacy rate.Most respondents reported a medium level of productivity, followed by those who reported a low level (20%), and then those who reported a high level of productivity (28%). Roy et (2013) reported the effectiveness of farmers' use of technology as the same trend in crop agriculture.

One hundred eighty-six people were trained in soil health management technology, which has a 55% adoption rate and 29.57% efficacy. 979 people were trained in ICM, INM, and IPDM in Paddy, with a 652% uptake rate and 66.6% efficacy. 89 extension workers were trained on emerging pests and diseases in horticulture crops, and their acceptance rate was 52%, while their effectiveness was 58.43%. 101 individuals were trained in ICM, INM, and IPDM, with a 54% acceptance rate and a 53.47% effectiveness rate. 148 people were trained in ICM, INM, and IPDM in Maize, with a 48% acceptance rate and a 32.43% efficacy rate. In Tapioca, 15 people were trained in ICM, INM, and IPDM; they had a 15% acceptance rate and 100% efficacy.

Vegetable crop cultivation under protection 25 people received training and they were 96% effective and 24% adopted. Integrated Methods of Weed Control 70 people were trained; the acceptance rate was 20% and the efficacy was 28.57%. Methods for producing vermicompost 50 people were trained, and they were 94% successful and 47% adopted. Resilient to Climate Change Wet Land Farming System Integrated 130 people were trained, resulting in a 46.15% efficacy and a 60% acceptance rate.

Meetings between bankers and farmers to discuss crop financing 47 individuals were given guidance, resulting in a 43% acceptance rate and 91.49% efficacy. Women's 100 educated in oyster and milky mushroom growing, with a 35 percent adoption and 35 percent efficacy rate. Feedback from successful farmers to new farmers 75 individuals were trained, resulting in a 55% acceptance rate and 73.33% efficacy. 96 people were trained on women's rights and empowerment, with a 29% adoption rate and a 30.21% effectiveness rate.

Knowledge of Crop Diversification 95 people were trained; the adoption rate was 42% and the efficacy was 44.21%. 112 people were trained in bee keeping and live demonstration, with a 56% adoption rate and 50% efficacy. Farmers' perspective on cattle management 50 people were trained, resulting in an 82% efficacy and 41% acceptance rate. 56 people were trained in crop production technology and honey beekeeping, with a 43% acceptance rate and a 76.79% effectiveness rate. Using the Integrated Farming System, farmers may double their revenue with 73 trained individuals, a 55% adoption rate, and a 75.34% effectiveness rate.

Farmers and scientists collaborate on climate-resilient varieties. 118 people were trained, with a 58% acceptance rate and 49.15% efficacy. Farrow land cultivation technique. 92 people were trained, with a 32% acceptance rate and 34.78% efficacy. Flower Bouquet training for 139 people resulted in an 84% adoption rate and a 60.43% efficacy. Pesticide and sprayer management 50 people were trained, with a 38% acceptance rate and 76% efficacy. High-tech cultivation of vegetable crops 59 people were trained, with a 43% acceptance rate and 72.88% efficacy. Improved production technology in Cumbu 94 people were instructed, with a 53% acceptance rate and 56.38% efficacy.

**Social acceptance**

A percentage of 75.33 was reached while evaluating social acceptance. Fifty six percent of people adopted the KVK farm technology intervention. Respondents' positive assessments of the training programme's ability to help them grasp the significance of peer approval suggest its efficacy. It is more effective to motivate the farmers for the adoption of new technology through the effective transfer of technologies among the target groups, such as field visits to different farms owned by trained farmers.

**Effectiveness of Training**

The Training Effectiveness Scores for the various dimensions under consideration are listed in Table 2 below, using the same methodology as Kulkarni and Nikhade (1996). According to Table 2, the effectiveness score for KVK intervention was determined to be the highest (91.48), followed by the score for social acceptance out of the seven primary aspects chosen for the study. Training courses were shown to be successful in boosting trainees' understanding of improved crop farming practices, as a result, KVKs should organize additional trainings so that a greater number of crop growers can benefit. Knowledge of Technology understanding score of 74.23 suggests that most farmers implemented the practices despite the training they received. Therefore, these methods require constant guidelines and the refinement of farmer-level methods and recommendations to ensure their widest possible implementation. When it comes to improving their economic situation, the instruction was effective enough to boost their annual net revenue from Adoption of technology (scoring 56.97), but more work needs to be done. The study indicated that the impact of training score (58.17) was lower than the other dimensions perhaps because most of the respondents were small farmers. The lowest efficacy score (56.97 out of 100) was for Adoption of technology, which is concerning because people who are secure in themselves are more likely to embrace change (Fig. 2). The findings indicate that despite extensive attempts to educate farmers in conventional professions and interests, there is still a gap that must be closed. To effectively transfer technologies among the target groups, KVKs need to reorient their training considering these findings. For example, field visits to different farms owned by farmers are more effective at motivating the farmers to adopt new technology. It was determined that the KVK training was effective across all evaluated aspects, with an overall training effectiveness score of 72.74. Van den Ban and Hawkins (1998) proposed improving the effectiveness of training programmes for farmers in the socioeconomically disadvantaged area.

**DISCUSSION**

The data presents a comprehensive overview of various training categories along with their respective metrics of effectiveness, including the number of participants, technology adoption rates, and the effectiveness of technology adoption percentages. The effectiveness of various training categories in terms of technology adoption and effectiveness percentage is summarized in the tableprovided. Upon analysis the effectiveness of different training categories, several observations can be made as several patterns and trends emerge:

**Technology Adoption Rates:** Across different training categories, there is a wide range of technology adoption rates. Categories like "IPM, ICM, IPDM in Paddy" and "Improved Seed Production Technologies on Gingelly" show relatively higher adoption rates, indicating successful dissemination and acceptance of technological practices within those domains. Conversely, categories such as "ICM, INM, IPDM in Groundnut" and "Integrated Weed Management Practices" exhibit lower adoption rates, suggesting potential challenges or barriers to technology uptake. There is a significant variation in technology adoption rates across different training categories. For instance, training sessions on "IPM, ICM, IPDM in Paddy" have seen high adoption rates with a technology adoption percentage of 66.6%, whereas certain sessions like "Integrated Weed Management Practices" exhibit lower adoption rates at 28.57%. the similar impact analysis in a same trend was done by the Patil and Kokate 2016.

**Effectiveness of Technology Adoption:** The effectiveness of technology adoption varies significantly across different training categories. Categories like "Value Addition in Cashew Apple" and "Importance of Organic Farming and Integrated Farming System" demonstrate exceptionally high effectiveness, with adoption percentages of 100% and 96.67% respectively. Conversely, categories such as "ICM, INM, IPDM in Groundnut" and "Integrated Weed Management Practices" exhibit lower effectiveness, indicating the need for reassessment or enhancement of training methodologies to improve technology adoption rates. Similar result of analysis recorded by Jaganand Ravikumar. 2016 and he reported that Precision farming optimizes inputs based on field variability to boost productivity and conserve resources. In India, challenges like limited education and small-scale farming hinder its adoption. Our paper examines precision agriculture's components and its implementation in the Tamil Nadu project.

**Successful Training Strategies:** Certain training categories stand out for their effectiveness in facilitating technology adoption and knowledge dissemination. For instance, categories like "Flower Bouquet Making" and "Cattle Management to the Farmers" exhibit high effectiveness percentages, suggesting the successful transfer of skills and practices to participants. The effectiveness of training programs can be evaluated by examining the technology adoption percentage. Categories like "Green Lively Hood" and "Value Addition in Cashew Apple" show high effectiveness with adoption percentages of 96.67% and 100% respectively. On the other hand, categories like "ICM, INM, IPDM in Groundnut" and "Integrated Weed Management Practices" demonstrate relatively lower effectiveness with adoption percentages below 30%. The similar trend was observed by the Belay et al 2012 and he reported that To make the dairy business more profitable particularly in peri-urban areas, it is necessary for the dairy farmers to possess sufficient knowledge and adopt improved dairy farming technologies. Socio-economic factors have an effect on improved dairy management practices and decision making process.

**Diverse Impact:**Certain training categories, such as "Improved Seed Production Technologies on Gingelly" and "Successful Farmer's Feedback to Training to New Farmers," showcase a balanced adoption rate and effectiveness percentage, indicating their positive impact on technology uptake and agricultural practices.Dehinenet et al 2014 reported that A large demand-supply variance for milk and milk products especially in urban centers indicating the untapped potential for development of market oriented urban and peri-urban dairy production systems, which play a significant role in minimizing the acute shortage of milk and dairy products in urban centers which is closely correlate this studies.

**Areas for Improvement:** Categories with lower technology adoption rates and effectiveness percentages highlight potential areas for improvement in training content, delivery methods, or participant engagement strategies. Addressing these gaps can enhance the overall impact and effectiveness of agricultural training programs. Training categories with lower effectiveness percentages, such as "ICM, INM, IPDM in Groundnut" and "Integrated Weed Management Practices," may require reassessment or enhancement of training methodologies to improve technology adoption rates.Additionally, gathering feedback from participants and stakeholders can help identify specific challenges or barriers to adoption, enabling trainers to tailor future programs more effectively.

**CONCLUSION**

Farmers in the Cuddalore district encounter numerous challenges, including a lack of technological knowledge. To bolster the agricultural sector for future prosperity, KVK can undertake various measures such as promoting modern farming practices, enhancing irrigation facilities, facilitating financial inclusion, and advancing technology utilization. However, for KVK training programs to thrive, scientists must consider these challenges and make necessary adjustments to the training agenda and content. One of the significant hurdles to broader adoption of these practices is the complexity of specialized techniques and the time and labor they demand for implementation in farming operations. Marginal farmers require greater support to enhance their crop yields and annual net income. Tailoring training to the educational level of farmers is essential as it instills confidence and motivates them to adopt new, more efficient farming methods.

In summary, designing and delivering agricultural training programs must go beyond mere information dissemination. It should create engaging experiences that provide practical skills and cater to participants' individual needs. Continuous evaluation and adaptation of these programs are essential to encourage technology adoption and drive positive change in agricultural communities. Refinement in certain training areas underscores the need for ongoing evaluation and improvement to ensure the effective dissemination and adoption of modern agricultural technologies across diverse sectors. Ultimately, this approach fosters a continuous journey towards enhanced productivity and sustainability in agriculture.

**REFERENCES**

Aphunu, A and Otoikhian, C. S. O. 2008. Farmers’ Perception of the Effectiveness of Extension Agents of Delta State Agricultural Development Programme (DADP). African Journal of General Agriculture, 4(3): 165 – 169.

Belay D, Yisehak K and Janssens 2012. Socio-economic factors influencing urban small scale dairy management practices in Jimma town, Ethiopia. Libyan Agriculture Research Center Journal International. 3(1): 7-12.

Dehinenet G, Mekonnen H, Kidoido M, Ashenafi M and Guerne Bleich E. 2014. Factors influencing adoption of dairy technology on small holder dairy farmers in selected zones of Amhara and Oromia National Regional States, Ethiopia. Discourse Journal of Agriculture and Food Sciences. 2(5): 126-135.

Dubey, A.K., Srivastva, J.P., Singh, R.P. and Sharma, V.K. 2008. Impact of KVK training programme on socio-economic status and knowledge of trainees in Allahabad district. Indian Res. J. Ext. Edu., 8(2&3): 60-61.

Jagan Gopu, A. and R. Ravikumar. 2016. A study on precision farming technologies and adoption in Tamil Nadu. International Journal of Management Research & Review. 6(8) :1123-1131.

Kulkarni, S.Y. and Nikhade, D.M. 1996. Effectiveness of extension training programmes for agriculture development. Agric. Ext. Rev., 8(1): 3-5.

Kumar, S. 2009. A study on technological gap in adoption of the improved cultivation practices by the soybean growers. M. Sc. (Agri.) Thesis, University of Agricultural Sciences, Dharwad (India).

Patil SS, Kokate KD. 2016. Training need assessment of subject matter specialists of Krishi Vigyan Kendras. Indian Research Journal of Extension Education. 11(21):18-22.

Roy, M.L., Nirmal, C.H.L., Kharbikar, H.L., Joshi, P. and Jethi, R. 2013. Socio-economic status of Hill Farmers: An evaluation from Almora district in Uttarakhand. Int. J. Agric. and food sci. Technol., 4(4): 353-358.

Shankara MH, Mamatha HS, Reddy KM, Desai N. 2014. An evaluation of training programmes conducted by Krishi Vigyan Kendra, Tumkur, Karnataka. International Journal of Farm Sciences. 4(2):240-8.

Sidram, 2008. Analysis of organic farming practices in pigeon pea in Gulbarga district of Karnataka state. M. Sc. (Agri.) Thesis, University of Agricultural Sciences, Dharwad (India).

Singh K, Peshin R, Saini SK. 2010. Evaluation of the agricultural vocational training programmes conducted by the Krishi Vigyan Kendras (Farm Science Centres) in Indian Punjab. Journal of Agriculture and Rural Development in the Tropics and Subtropics (JARTS). 111(2):65-77.

Singh, D.K., Singh, B.K., Yadav, V.P.S. and Singh, L. 2010. Adoption behaviour of commercial vegetable growers in district Ghaziabad (UP). Indian Res. J. Ext. Educ.,10(3): 66-70.

Van den Ban AW, Hawkins HS. 1998. Agriculture extension. 2nd Edition. CBS Publishers and Distributors, New Delhi; 187p. **Table 1. KVK intervention to the farmers by training and effectiveness and adoption of farmers**

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| --- | --- | --- | --- | --- | --- |
| **S. No** | **Factor** | **Training Category** | **No. of Persons** | **Technology Adoption** | **Effectiveness of Technology %** |
| 1 | IPM | ICM, INM, IPDM in Tapioca | 15 | 15 | 100.00 |
| 2 | VAM | Value addition in Cashew apple | 15 | 15 | 100.00 |
| 3 | VAM | Value Added Products from Milk and Fodder Bank | 41 | 40 | 97.56 |
| 4 | ICM | Green lively hood | 30 | 29 | 96.67 |
| 5 | INM | importance of organic farming and Integrated Farming System | 30 | 29 | 96.67 |
| 6 | IPM | protected cultivation of vegetable crops | 25 | 24 | 96.00 |
| 7 | INM | Crop physiological disorder and its management | 20 | 19 | 95.00 |
| 8 | SHT | Vermicompost production techniques | 50 | 47 | 94.00 |
| 9 | ICM | Improved Seed production technologies on Gingelly | 50 | 46 | 92.00 |
| 10 | SUM | Interaction meeting between Bankers and Farmers for crop loans | 47 | 43 | 91.49 |
| 11 | TDM | Profitable coconut cultivation technologies | 32 | 29 | 90.63 |
| 12 | INM | Integrated nutrient management and fertilizer usage | 20 | 18 | 90.00 |
| 13 | IPM | Protected cultivation of Vegetable crops | 20 | 18 | 90.00 |
| 14 | TDM | Water conservation methods for various agricultural crops | 37 | 33 | 89.19 |
| 15 | ICM | ICM in Cashew and value addition | 27 | 24 | 88.89 |
| 16 | INM | Management of Problematic Soils | 50 | 44 | 88.00 |
| 17 | VAM | Value addition in Jack fruit | 45 | 39 | 86.67 |
| 18 | TDM | Quality seed production techniques | 44 | 38 | 86.36 |
| 19 | ICM | importance of millet cultivation | 25 | 21 | 84.00 |
| 20 | TDM | TNAU New Varieties popularization | 25 | 21 | 84.00 |
| 21 | TDM | Cattle Management to the farmers | 50 | 41 | 82.00 |
| 22 | VAM | Food processing and value addition | 31 | 25 | 80.65 |
| 23 | TDM | Skill Development Training for Entrepreneurship development of the Physically challenged persons | 36 | 29 | 80.56 |
| 24 | ICM | SRI Paddy Samba Varieties | 50 | 39 | 78.00 |
| 25 | INM | importance of soil and water testing | 45 | 35 | 77.78 |
| 26 | TDM | Zero tillage and usage of seed drill | 26 | 20 | 76.92 |
| 27 | TDM | Crop production technologies and Honey bee keeping | 56 | 43 | 76.79 |
| 28 | TDM | Handling of pesticides and Sprayers | 50 | 38 | 76.00 |
| 29 | TDM | Pesticide free village group Training | 50 | 38 | 76.00 |
| 30 | TDM | Doubling the farmer income through Integrated Farming System | 73 | 55 | 75.34 |
| 31 | TDM | Small Onion cultivation techniques | 38 | 28 | 73.68 |
| 32 | SUM | Successful farmer's feedback to training to New Farmers | 75 | 55 | 73.33 |
| 33 | TDM | Hi-Tech cultivation of vegetable crops | 59 | 43 | 72.88 |
| 34 | VAM | Value addition in minor millets | 55 | 39 | 70.91 |
| 35 | TDM | Production of oyster and milky mushrooms | 60 | 42 | 70.00 |
| 36 | IPDM | ICM, INM, IPDM in Paddy | 979 | 652 | 66.60 |
| 37 | TDM | Recent production Technology and Value addition in Cashew | 50 | 33 | 66.00 |
| 38 | ICM | Improved production technology of cluster bean and vegetable cowpea | 86 | 55 | 63.95 |
| 39 | ICM | Plant nutrient deficiencies and its management & Vermicompost technologies | 60 | 37 | 61.67 |
| 40 | TDM | Waste management at Santhapadi village | 90 | 55 | 61.11 |
| 41 | TDM | Flower Bouquet making | 139 | 84 | 60.43 |
| 42 | IPM | Emerging pest and disease in Horticulture crops to extensional functionaries | 89 | 52 | 58.43 |
| 43 | TDM | Improved production technologies in Cumbu | 94 | 53 | 56.38 |
| 44 | TDM | Improved seed production techniques in agricultural crops | 371 | 201 | 54.18 |
| 45 | IPM | ICM, INM, IPDM in Coconut | 101 | 54 | 53.47 |
| 46 | TDM | Bee keeping and live demonstration | 112 | 56 | 50.00 |
| 47 | TDM | Farmers Scientists Interface on Climate Resilient Varieties | 118 | 58 | 49.15 |
| 48 | ICM | Rice Fallow pulses Black gram varieties and seed production | 100 | 47 | 47.00 |
| 49 | ICM | Crop cultivation technologies on Tomato and Brinjal | 96 | 45 | 46.88 |
| 50 | SUM | Climate Resilient Integrated Wet Land Farming System | 130 | 60 | 46.15 |
| 51 | ICM | Cashew production Technology | 120 | 55 | 45.83 |
| 52 | INM | Balanced use of fertilizer | 68 | 31 | 45.59 |
| 53 | ICM | Kuruvai Rice Nursery Management | 121 | 54 | 44.63 |
| 54 | ICM | Importance of Fodder Pellets and Production Strategy | 45 | 20 | 44.44 |
| 55 | TDM | Awareness on Crop diversification | 95 | 42 | 44.21 |
| 56 | ICM | Integrated Farming Cluster Village | 204 | 89 | 43.63 |
| 57 | ICM | Seed production technologies in Paddy, Groundnut & Vegetable cultivation | 60 | 26 | 43.33 |
| 58 | TDM | Spawn and mushroom production | 383 | 157 | 40.99 |
| 59 | TDM | Maize cultivation techniques | 91 | 37 | 40.66 |
| 60 | TDM | kitchen garden | 173 | 64 | 36.99 |
| 61 | ICM | Improved seed production technology of paddy | 153 | 54 | 35.29 |
| 62 | SUM | Oyster and milky mushroom cultivation technology for Womens | 100 | 35 | 35.00 |
| 63 | TDM | Farrow land cultivation Technique | 92 | 32 | 34.78 |
| 64 | ICM | Seed production techniques in Paddy, Pulses & Oilseeds | 155 | 53 | 34.19 |
| 65 | IPM | ICM, INM, IPDM in Maize  | 148 | 48 | 32.43 |
| 66 | INM | Soil constraints and management | 135 | 43 | 31.85 |
| 67 | TDM | Skill Trainers Training Programme to Project Staff and Farmers of Cuddalore district | 48 | 15 | 31.25 |
| 68 | ICM | ICM, INM, IPDM in Pulses | 316 | 96 | 30.38 |
| 69 | SUM | Women empowerment and rights of women | 96 | 29 | 30.21 |
| 70 | INM | Soil health management Technology | 186 | 55 | 29.57 |
| 71 | IWM | Integrated Weed Management Practices | 70 | 20 | 28.57 |
| 72 | INM | INM in flower crops at Aladi village | 137 | 37 | 27.01 |
| 73 | ICM | Exposure visit cum ICM Paddy, IDM Paddy & INM in Paddy TRRI, Aduthurai | 141 | 37 | 26.24 |
| 74 | TDM | Method demonstration of Drone spray | 146 | 38 | 26.03 |
| 75 | TDM | Mushroom production technologies | 179 | 46 | 25.70 |
| 76 | TDM | Solar dry fishery Technology | 145 | 37 | 25.52 |
| 77 | IFS | IFS and Natural Farming | 242 | 59 | 24.38 |
| 78 | TDM | Nurti garden for food security | 238 | 58 | 24.37 |
| 79 | TDM | Improved Seed production technologies on groundnut | 326 | 78 | 23.93 |
| 80 | ICM | ICM, INM, IPDM in Groundnut | 302 | 60 | 19.87 |

**Table 2: Training effectiveness score of each dimension under study**

|  |  |  |
| --- | --- | --- |
| **Dimensions** | **Training effectiveness score (%)** | **Rank** |
| KVK Intervention  | 91.48 | 1 |
| Social acceptances  | 75.33 | 2 |
| Knowledge on Technology | 74.23 | 1 |
| Social Economics | 69.84 | 4 |
| Technology acceptance | 60.67 | 5 |
| Impact of training | 58.17 | 6 |
| Adoptions of Technology | 56.97 | 7 |
| **Overall Training Effectiveness score** | 72.74 |  |