

Extent of adoption of new farm technology by the beneficiaries after the training programme

Dr. Dilip Kumar Trivedi

Lecturer, Department of Agriculture Extension Education
Govt. P.G College, Sawaimadhopur, Rajasthan, India

ABSTRACT: Adoption is a decision to make full use of a new idea as the best course of action. There are five stages of adoption namely awareness, interest, evaluation, trial and adoption. Before adoption an individual has to pass first four stages then one comes to last or final stage of adoption. The adoption process is only complete when it is being adopted on a permanent basis by most of the members of the society and there must be satisfaction with the practices.

Keywords: Land farming, Fertilizers, Modern Agriculture, Technology.

INTRODUCTION

To find out the extent to which different practices were adopted, the frequency under each category of adoption was worked out and presented in the given Table.

S. No.	Types of training programmes	Adoption				Extent of adoption					
		Yes		No		Fully		Partially		Very little	
		F	%	F	%	F	%	F	%	F	%
A	TRYSEM	7	35	13	65	1	14.28	5	71	1	14.28
B	Home Science	20	100	-	-	8	40	11	55	1	5
C	General Agriculture	20	100	-	-	5	25	13	65	2	10

This table shows that under TRYSEM training programme twenty rural youths have received training in tractor repairing and electric motor rewinding at the Directorate of Extension Education, Udaipur. It was expected that all those who received training would take up the programme as self employment but findings of the study were very disappointing as 65 per cent (13 trainees) of the TRYSEM trainees did not take up the programme in village. This shows that the training imparted to them either has

been not useful to them on trainees have not taken any initiatives in utilization of the skill for their self employment. On enquiring from them it was reported that finance was the major constraints for taking up this program. Training in tractor repair was also not suited to village condition as practically no tractor were available for repair in the area on account of small size of holdings. In all eight respondents who received training in tractor repairing have not taken up any self-employment programme. Thus, the training was of not much use to this category of respondents.

MODERN AGRICULTURE TECHNIQUES IN INDIA

Genetic manipulation: Modern agriculture has crop and livestock breeding methods that most farmers are looking for. Generally, hybrid seeds are used. This is where two or more species of plants are used to produce a higher quality offspring. Genetic engineering is another specialization, where molecular building blocks are developed.

Intensive farming: Proper soil aeration to improve air circulation in the soil is important. Therefore, for a greater yield of farm produce, it is necessary to do excessive tilling of the land. Regular deep and whole-land cultivation is a first-rate structure of farming.

Monoculture: Monoculture is the growth of only one type of crop on a given plot of land. It makes land farming easy. Since the crop to be planted is of the same type, the land is tilled in the same way. This makes land-farming and management very simple.

Usage of Synthetic Fertilizers: Utilizing fertilizers to increase the fertility of the land one plans to farm is a big deal. Over the years, over prolonged periods, repeated uses of land led to a plateau in the fertility of the land. Since tilling the land is an old-fashioned technique because there was not enough land to go around, using fertilizers has helped. Twelve youths had received training of electric motor rewinding with the intention that they would take up electric motor rewinding job in their villages, but it also did not prove worth while and the money spent on these trainees by DRDA (Districts Rural Development Agency) through DEE was also partially wasted as five respondents did not take up any self-employment programme and now they are doing their parental occupation.

Five trainees have partially taken up electric motor rewinding work in Udaipur city and are not dependent solely on this occupation. They are working as helpers on motor rewinding shops. One trainee (Mr. Nathu Lal) of village Jhadol (P.S. Sarada) performing the job of electric motor rewinding fully after getting training. i.e. opened a shop of motor rewinding and electric work. His shop is at a very prominent place and easy excess to the farmers. Now he is permanently employed. One trainee of the same panchayat samiti is also doing the job of electric motor rewinding but very occasionally. He is more concerned with his parental occupation.

As far as the Home Science and General Agriculture training programmes are concerned all the participants adopted the improved practices but the extent of adoption of the practices discussed during the training periods have not been adopted to the same extent by the trainees.

In Home Science training the practices about which training was imparted were balanced food for good health, provision of proper ventilation in the houses, introduction of poshak, use of filter cloth for straining water, smokeless chulha,

construction of improved storage bins. development of children (care of children) and soap making. After under going the training, 40 per cent farm women beneficiaries have adopted the above practices fully as demonstrated to them during the training period, except in case of balance diet (food) as they have their own financial limitations which do not permit them to adopt it. 25 per cent of the respondents have adopted the practices partially, these are - introduction of poshak, use of smokeless chulha, construction of improved storage bins and care of children. One or the other reason, these 55 per cent farm women beneficiaries did not adopt the practices like balance food for good health, provision of proper ventilation in the houses, use of filter cloth for straining water and soap making. One farm woman of beneficiary of village Balicha has not adopted any of the practice and despite the training.

In General Agriculture training programme one fourth (25 per cent) of the participating farmers have been fully following the practices, like - use of improved seeds, use of balance fertilizers to the crop as recommended in the training programme, plant protection measure, treatment of seeds with chemical before sowing them to field, storing food grains after treating with chemical, using improved method of sowing, pre-paring nursery bed, budding and grafting. 65 percent of them partially adopted, the inputs used by them were not as per the recommendation given to them during the training period. There are balanced use of fertilizers, improved seeds for sowing, improved methods of sowing etc. Two trainees (10 percent) seldom use practices or do not use the practices at all.

Important of technologies adoption

As of not long ago, the selection of advancements accessible to ranchers was to a still up in the air by the need to build creation, benefits and efficiency. The

fundamental imperatives were the accessibility of capital, information on the most proficient method to utilize the innovation and market takes a chance with gambles with that in numerous nations strategies were protected by government arrangements. Previously, "great arrangement rehearses" was in this way rather direct, relating principally to expanding yield and the point of rural approaches was to increment efficiency in agribusiness. Horticultural examination and augmentation administrations could focus. for instance, on working on the efficiency of little homesteads.

Presently farming needs to satisfy different targets: it should be universally aggressive, produce agrarian results of excellent while meeting manageability objectives. To stay cutthroat, horticultural makers need fast admittance to arising advances. Ranchers are confronted with a lot more requirements and furthermore more open doors. As well as being beneficial, they need to fulfill ecological guidelines and guidelines, as well as manage immediate and roundabout shopper and anteroom bunch pressures. They may likewise be overwhelmed with data from different government and industry sources, that make picking suitable advancements more troublesome. Ranchers likewise need to change their creation and the board rehearses in light of horticultural strategies that incorporate natural circumstances and I'm sure that ranchers have the ability to do as such.

Vulnerability might increment much more later on. There may likewise be vulnerability connected with the future approach climate, particularly concerning backing, exchange and tensions from the agro-food area. Embracing advances by ranchers is a venture. It requires investment, be that as it may, for the compensations to stream and ranchers might be hesitant to put resources into a questionable environment with additional imperatives, where a portion of the advantages are for society. Would it be a

good idea for it to be the rancher or society that pays?

Mechanical change has been the reason for expanding agrarian efficiency and advancing farming turn of events. Research influences the efficiency of cultivating frameworks by creating new innovations which, if proper to ranchers' conditions, will be quickly embraced. By and large, scientists and augmentation laborers have been fundamentally liable for distinguishing and infusing monetary and natural variables into the most common way of creating and presenting an agrarian advancement. This is commonly portrayed as a hierarchical interaction, by which scientists foster the development, expansion laborers advance its utilization, and ranchers either embrace or reject the development in light of the elements vital to them.

ADVANTAGES OF NEW TECHNOLOGIES IN AGRICULTURE:

Farmers don't have to spray water, fertilizer, and pesticides in uniform quantities over entire fields anymore. Instead, they can use minimal amounts needed for very specific areas or even treat individual plants differently. The benefits of this include:

1. Steadier crop yields
2. A decrease in water, fertilizer and pesticide use, in turn, keeps food prices low
3. Reduced impact on surrounding environment
4. Prevent runoff
5. Safety improvements for workers

Steps taken by govt. in this direction

1. AgriStack: The Ministry of Agriculture and Farmers Welfare has planned creating 'AgriStack' - a collection of technology-based interventions in agriculture.
2. Digital Agriculture Mission: This has been initiated for 2021 -2025 by the government for projects based on new

technologies like artificial intelligence, block chain, remote sensing and GIS technology, use of drones and robots etc.

3. Unified Farmer Service Platform (UFSP): UFSP is a combination of Core Infrastructure, Data, Applications and Tools that enable seamless interoperability of various public and private IT systems in the agriculture ecosystem across the country.
4. National e-Governance Plan in Agriculture (NeGP-A): A Centrally Sponsored Scheme, it was initially launched in 2010-11 in 7 pilot States, which aims to achieve rapid development in India through use of ICT for timely access to agriculture related information to the farmers.
5. In 2014-15, the scheme was further extended for all the remaining States and 2 UTs.
6. Sub-Mission on Agricultural Mechanization (SMAM):
7. Under this Scheme, subsidies are provided for purchase of various types of agricultural equipment and machinery.
8. Other Digital Initiatives: Kisan Call Centres, Kisan Suvidha App, Agri Market App, Soil Health Card (SHC) Portal, etc.

Conclusion

Technology adoption has proved that it has potential to improve agricultural efficiency by improving farmers' knowledge, access to credit, and agriculture output in many ways. Hence, technology adoption can help the farm product to reach from "local to global" market in an efficient way. If addressed the remaining issues in the technology adoption, it will also help to convert the image of Indian "Peasant farmer" in to an "Entrepreneur farmer".

References

1. Taylor, C.C. 1967. Training personnel for community development. Indian Roots of Democracy. Associo- logical analysis of rural Indias experience in planned development since independence. Orient longmans, Bombay, Calcutta, Madras, New Delhi. p. 276.
2. Taylor, M.H. 1961. Training of trainers. Kurukshetra,9(9), p. 19-23.
3. Webster, A.A. 1947. Webster's Collegiate Dictionary, Bell and Sons. Ltd., London, pp. 11059.
4. Singh, B.P. and Sohal, T.S. 1969. Farmers Training in Punjab. Kurukshetra, 17 (10), p. 26-27.
5. Singh, D. and Srivastava, V.K. 1970. Training extension personnel and progressive farmers in U.P. Research in Extension Education for accelerating development process, I.S.E.E., New Delhi, p. 63-69.
6. Singh, M. 1972. A study of some techno-economic factors affected adoption of bajra technology in Delhi territory. M.Sc. (Ag.) Thesis (Unpublished), I.A.R.I. New Delhi.
7. Singh, V.B. and Magalwade, D.L. 1978. Factors influencing adoption of high yielding variety of paddy in Maharashtra. Journal of Rural Extension, 6 (1 and 2) p. 14-19.
8. Singh, J.N., Tyagi, K.C. and Sohal, T.S. 1979. Training needs of dairy farmers. Indian Jr. of Extn. Edu. Vol. XV, (3 and 4). December.
9. Satyanarayana, I. and Bhaskaram, K. 1971. Training needsof farmers in Hyderabad district. Extension Trainer1(1): p. 4-7
10. Sinha, B.P. and Sohal, T.S. 1970. Young farmer's training. Kurukshetra, 18(10): p. 8-9.
11. Sohal, T.S. and Singh, R. 1968. An evaluative study offarmers training programme, organized by P.A.U. at district level. Unpublished report.