



Impact of Agriculture Skill Council of India sponsored trainings on knowledge and adoption among poultry farmers of Himachal Pradesh

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ABSTRACT

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The present study assessed the effectiveness of Agriculture Skill Council of India sponsored long duration poultry farming trainings on knowledge gain and adoption among the trainees. Knowledge test was administered to 40 trainees (20 in each batch), before and after the one month long training programmes in 2018-19 and 2019-20. Based on the scores obtained, trainees were categorised into low, medium and high knowledge categories. Majority of the trainees were below 40 years with education up to higher secondary level. Sizeable proportion of trainees belonged to scheduled castes and other backward classes. Majority had experience in poultry farming prior to training. All the trainees passed the third party assessment organised by ASCI and got their certification. Pre training, majority (75%) of trainees had medium level of knowledge. Post training, cent per cent trainees moved to high knowledge category. The gain in the knowledge was found to be statistically significant at 1%, measured through paired t test. Majority of trainees showed positive change in terms of adoption of recommended practices in their flocks after the training. Thus, it is concluded from the study that the training programmes are excellent extension tools for the capacity building of the farmers and usher them towards poultry entrepreneurship.

Keywords: ASCI, Adoption, Knowledge, Poultry and Training

INTRODUCTION

Himachal Pradesh is a northern state of India with latitude 32.084206° N, and the longitude 77.571167° E. Total poultry population of 1.34 million birds in the state constitutes 0.16 % of national poultry population (Livestock census, 2019). In Himachal Pradesh, landholding size are small, agriculture is predominantly rainfed affected by stray cattle problem. Under such situations, poultry farming can play significant role in nutritional security of the marginal farmers of the state. Investments in small scale poultry farming generate reasonable returns and also contribute to poverty reduction (Jha and Chakrabarti, 2017). The majority of the farmers in the state still rear low input birds, in the small scale backyard farms. This small scale farming system, is a low input -low output production system. Thakur *et al.* (2012) in their study, reported that rearing of poultry birds is mostly done in traditional ways, without any scientific and modern insight. As a result, low productivity has been observed with average 80-100 eggs per annum by native birds. Awareness strategies are imperative to promote remunerative poultry farming enterprise in the region. Training remains the first step to improve the knowledge, attitude and skills of the trainee. Also, enhanced economic motivation through training programmes improves productivity & profitability of backyard poultry enterprises (Singh, 2012). Khandait

et al. (2011) highlighted the need to impart training for backyard poultry owners for better productivity. Govt. of India, in its various initiatives have emphasised upon skill based trainings for livestock farmers. Among these, one is the creation of Agriculture Skill Council of India (ASCI). It is a not for profit concern which works under the aegis of Ministry of Skill Development & Entrepreneurship (MSDE). ASCI works towards capacity building by bridging gaps and upgrading skills of farmers, and other stakeholders of agriculture and allied sectors.

Under such capacity building programmes, two skill based trainings of one month long duration on job role “Small Poultry Farmer” were organised at Department of Veterinary & Animal Husbandry Extension Education, Dr. G.C. Negi College of Veterinary and Animal Science, Chaudhary Sarwan Kumar Himachal Pradesh Krishi Vishvavidyalaya, Palampur (H.P.) in 2018-19 and 2019-20. Trainings were conducted in two batches (20 in each batch) and were one month long (240 contact hours). Therefore, the present study assesses the effectiveness of the ASCI training programmes in terms of knowledge gain and adoption of recommended scientific poultry management practices.

MATERIALS AND METHODS

The present study investigates the effectiveness of ASCI sponsored poultry farming training among 40 poultry farmers. A list of 40 trainees was prepared who underwent training in two batches in the years 2018-19

and 2019-20. The list consists of poultry farmers from all over the state. Ultimate target group i.e. trainee poultry farmers were selected randomly, keeping in view their farming characteristics. These trainees were selected for one month long (240 contact hours) training on job role of small poultry farmer. The trainings were conducted at Department of Veterinary and Animal Husbandry Extension Education, DGCN COVAS, CSKHPKV Palampur by involving the subject matter experts from all the concerned disciplines. A structured interview schedule was prepared based on the scientists' expert opinions and the improved package of practices. A knowledge test was prepared to gauge the respondents' level of knowledge of the recommended management practices for poultry farming. The data were gathered through two in-person interviews utilizing a 25-question knowledge test before the training programs began and after they ended. The responses of poultry farmers were obtained and wrong answer was evaluated as '0' and score of '1' was allotted for correct answer. The gain in knowledge was calculated as the difference in the post training and pre training knowledge scores. Further, the trainees were categorised into low, medium and high level of knowledge using the mean and standard deviation formula. Paired 't' test was employed to determine the

significance of the change in knowledge post-training programmes.

Low = Below (Mean – SD)

Medium = (Mean ± SD)

High = Above (Mean + SD)

RESULTS AND DISCUSSION

From table 1, majority (62.5%) of trainees belonged to young age category followed by medium age category (30%). 95 percent of the trainees were males while only 5 percent females took part in the training. This may be due to on campus and longer duration (one month long) of training programmes. Women farmers with limited social mobility due to socio- economic consideration are unable to attend residential training programmes. Among the trainees, 42.5 percent belonged to general category, (32.5 percent to scheduled castes, 7.5 percent to scheduled tribes and 17.5 percent to other backward classes. The participation of more SC/OBC category trainees indicated their inclination towards adopting poultry farming as a means of livelihood. Parveen *et al.* (2021) in their study on constraints analysis, found that majority of the farmers were young, male, untrained, and marginal.

Table 1: Distribution of the respondents according to their socio -personal characteristics

Factor	Variable	2018-2019	2019-2020	Overall
		F (%)	F (%)	F (%)
Age (Years)	< 25	4 (20)	7 (35)	11 (27.5)
	25-40	9 (45)	5 (25)	14 (35)
	41-60	6 (30)	6 (30)	12 (30)
	>60	1 (5)	2 (10)	3 (7.5)
Sex	Male	18 (90)	20 (100)	38 (95)
	Female	2 (10)	0 (0)	2 (5)
Education	Up to Matric	6 (30)	5 (25)	11 (27.5)
	Higher secondary	8 (40)	11 (55)	19 (47.5)
	Graduate	4 (20)	4 (20)	8 (20)
	Post graduate	2 (10)	0 (0)	2 (5)
Experience in Poultry Farming	Yes	13 (65)	11 (55)	24 (60)
	No	7 (35)	9 (45)	16 (40)
Caste	General	6 (30)	11 (55)	17 (42.5)
	Scheduled Caste	7 (35)	6 (30)	13 (32.5)
	Scheduled Tribe	2 (10)	1 (5)	3 (7.5)
	Other backward Classes	5 (25)	2 (10)	7 (17.5)
Primary Occupation	Agriculture	17 (85)	19 (95)	36 (90)
	Other	3 (15)	1 (5)	4 (10)

All the values within bracket indicate percentage

Table 2: Assessment of trainees by “Agriculture skill council of India”

S. No.	Year	No. of participants	Participants who have undergone assessment	No. of participants who successfully passed
1.	2018-19	20	20	20(100)
2.	2019-20	20	20	20(100)

All the values within bracket indicate percentage

As evident from table 3, during the year 2018-19, 15 percent trainees fell into low knowledge score category followed by 80% trainees into medium knowledge score category and only 5 percent trainees into high knowledge score category based on their pre training knowledge scores. Post training, all (100%) trainees improved their knowledge score and fell into high knowledge score category. For next training batch, during succeeding year 2019-20, 30 percent trainees fell into low knowledge score category and 70 percent trainees into medium knowledge score category. None of participants fell into high knowledge score category based on their pre training knowledge score. Post training, all (100%) trainees were placed in high knowledge score category. Overall combined, post training, all (100%) trainees were placed in high knowledge score category. Similar results were reported by Pulla *et al* 2021, who reported that after training, the majority of the respondents rose from medium level of knowledge to the high knowledge category, signifying the effectiveness of the training

programme.

Also for the year 2018-19, the average knowledge score of the trainees in the pre training test was 11.9 ± 2.92 , which rose to 22.8 ± 1.59 , post training programme. Similarly, in year 2019-20, the average knowledge score of the trainees in the pre training knowledge test was 9.75 ± 2.71 , which, increased to 22.55 ± 1.10 post training. The knowledge gain was found to be statistically significant at 1% level (Paired t test) for both the training programmes. Therefore, training programmes enhanced the knowledge of the trainees about various aspects of scientific poultry farming. Thakur *et al.* (2021), reported that the training programmes on poultry production by Agriculture Skill Council of India not only improved the knowledge of trainees but also helped them to start new enterprise or strengthen their existing flocks. Further, Pralhad *et al.* (2020) also concluded that the training had significant impact on the uptake of new technologies by the farmers.

Table 3: Knowledge level of trainees about poultry farming practices

Category	F (%)					
	2018-19		2019-20		Overall	
	Pre Training	Post Training	Pre Training	Post Training	Pre Training	Post Training
Low (Less than 8.3)	3 (15)	0 (0)	6 (30)	0 (0)	9 (22.5)	0 (0)
Medium (Between 8.3 to 16.7)	16 (80)	0 (0)	14 (70)	0 (0)	30 (75)	0 (0)
High (More than 16.7)	1 (5)	20 (100)	0 (0)	20 (100)	1 (2.5)	40 (100)

All the values within bracket indicate percentage

Table 4: Average knowledge score before and after training

Parameter	2018-19		2019-20	
	Pre Training	Post Training	Pre Training	Post Training
Knowledge score	11.9 ± 2.92	22.8 ± 1.59	9.75 ± 2.71	22.55 ± 1.10
Paired t test	Significant at 1% level		Significant at 1% level	

Table 5: Impact of Training in terms of expansion of enterprise

Parameter	Frequency & percentage		
	2018-19	2019-20	Overall
Poultry farming trainees	20 (100)	20 (100)	40 (100)
Beginners to poultry farming	7 (35)	9 (45)	16 (40)
Already doing poultry farming	13 (65)	11 (55)	24 (60)
Adopted poultry farming after training	6 (30)	7 (35)	13 (32.5)
Expanded poultry farming after training	11 (55)	10 (50)	21 (52.5)
No change in flock size	3 (15)	3 (15)	6 (15)

All the values within bracket indicate percentage

Table 5 depicts that, overall 16 (40%) trainees had no first-hand experience in the poultry farming. They had joined the training programme, to first gain necessary knowledge and skills required for poultry rearing and then venturing into the enterprise. Post training, 32.5 percent trainees, who were not rearing birds before training, started rearing poultry birds at least on the small scale. This constituted around 81.25 percent of those trainees who were novice to poultry farming. Also, 87.5 percent of already practicing trainees, expanded their poultry enterprises post training programmes. Therefore, training programmes proved useful to initiate and scale up poultry enterprise in the region. In a similar study in the state of Himachal Pradesh, Thakur *et al.* (2013) found that interventions led to higher adoption of scientific poultry farming practices. Also, Kushwah and Kumar (2017) reported that, post raining respondents adopted improved backyard poultry technologies and it is important for farmers to be trained frequently on new poultry technologies as this increases the poultry production in the region. Kushwah *et al.* (2016) also reported that majority of the poultry farmers showed medium level of adoption of recommended technology after training. Ezeibe *et al.* (2014) concluded that the entrepreneurship training had a positive effect on the adoption level of improved management practices of the farmers. They also recommended interventions for government to facilitate adoption of the improved management practices by the farmers. In our study, a small proportion (15%) participants showed no change in flock size before and after the training. This may be due to employment in other sector, impact of COVID pandemic, non-access to capital, social taboos and poor government support. However for clearer picture, a detailed investigation on perceived constraints is warranted. Patil *et al.* (2020) in their study revealed that skill-based trainings organized by KVK led to knowledge gain and skill acquisition about different poultry breeds, debeaking, feeding, brooding, vaccinations and raising methods among the trainees.

CONCLUSION

Backyard poultry farming has been advocated as instrument of socio economic upliftment of the resource poor and deprived citizens. The skill development trainings help to build human capital with enhanced knowledge, skills and resulting in favourable action. The present study suggested that ASCI sponsored trainings on the job role “Small poultry farmer” proved to be significantly effective in raising the knowledge of the trainees regarding various aspects of poultry farming. The trainings also lead to increase in adoption level realised in the form of increased flock size and improvement in the rearing practices. Such skill based trainings must be conducted more frequently for the needy farmers.

However, access to credit and inputs, social taboo, COVID pandemic and poor market infrastructure were constraints which affected the potential benefits which could be realised post training. These constraints warrant attention from policy makers to make such trainings even more effective.

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