

Training Need Assessment (TNA) of Backyard Poultry Farmers of Erode District of Tamil Nadu

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Abstract

Backyard poultry is a crucial livelihood component of rural poor providing valuable animal protein and a subsidiary income. For an effective and efficient backyard farming latest scientific technologies and practices are to be adopted. In this regard farmers need to be trained. Training changes the level of knowledge and skills involved. Keeping this in view, a study was taken up on Training Need Assessment (TNA) of rural farmers in backyard poultry rearing practices. The study was conducted among randomly selected 240 respondents of Erode district of Tamil Nadu. An ex-post facto research design was adopted and a structured schedule was used for data collection. Upon analysis, the farmers perceived very high need of training in balanced feed preparation (TNI of 88.44), followed by increasing hatchability of eggs (TNI 81.48), candling of eggs (TNI 79.83) and control of ecto-parasites using ethno veterinary preparations (TNI 78.32). The respondents preferred training of one-day duration, during March to May, using onsite demonstrations at their own villages.

Keywords: Backyard Poultry, Training Need Assessment (TNA), Training Strategy

Introduction

The contribution of agriculture and allied sector to our Nation's GDP is about 17.32 per cent with an annual growth of 4.1 per cent (Economic Survey, 2016-17). Amongst the agriculture and allied sector, Indian poultry sector is one of the major player with an overall growth of about 7-8 per cent per annum (0.7 % of National GDP). In the present scenario, rural backyard poultry farming is contributing nearly 21 per cent to the national egg production. There is also growing evidence to demonstrate the role of rural backyard poultry in enhancing the food and nutritional security of the poorest households, reducing their livelihood vulnerability and insecurity, and promotion of gender equity (Ahuja and Sen, 2007; Otte, 2006; Reddy, et al., 2017 and Singh, 2019).

Market oriented backyard poultry enterprises are being recognized as a stepping stone for the poorest households enabling them to take the initial step towards breaking out of the vicious circle of poverty and deprivation. Likewise, the demand of eggs and meat of rural areas is fulfilled by rearing of backyard poultry (Nath et al, 2012). In order to reduce poverty and enhance nutrition in a developing country like India growth of poultry sector can contribute heavily (GoI, 2002 and Ali 2007) and this is true with livelihood improvement for most of the tribal population in India.

Backyard poultry farming (BYPF) is a low input or no input venture characterized by indigenous night shelter (Zoungrana and Slenders, 1992 and Saha 2003), scavenging system with little supplementary feeding (Rangnekar and Rangnekar 1996) and natural hatching of chicks. For backyard poultry production to be effective and efficient, farmers need to adopt latest technologies and practices. They need to be trained in the various subject matters areas of backyard poultry production, poultry products value addition and their economic importance and also on poultry marketing. Since agriculture is information driven industry, farmers seek and rely on information for optimum performance. In spite of having potential of good economic returns from backyard poultry birds, rural farmers could not earn good income from such activities owing to lack of training in scientific ways of poultry production. (Panda et al, 2008) The farmers are unaware of the farm practices and various challenges related to backyard poultry farming, especially when the flock size increases. For making poultry farming economically viable in the rural areas, basic training related poultry farming is utmost important. Training changes the level of knowledge and skills of the farmers in the domains of poultry production, viz., identification of improved backyard poultry birds, diseases management, climatic stresses, feed ingredients and poultry waste management. Keeping in view the importance of training, it was proposed to take up the Training Need Assessment (TNA) of rural farmers in backyard poultry rearing practices.

Material and Methods

An ex-post facto research design was adopted in the present study. The study was conducted in Erode district of Tamil Nadu, India. From the Erode district two revenue taluks were selected randomly from two revenue divisions and from each of these selected four taluks, two villages were selected. Thus finally eight villages were selected randomly by adopting multi stage random sampling technique. Then from each village, a list of farmers possessing backyard poultry was prepared with the help of the local veterinarian and key informants and from this list 30 backyard poultry farmers were selected randomly. Thus, the final sample comprised of 240 respondents drawn from eight villages. A Pre – tested, structured interview schedule was developed and used for the purpose of data collection that was containing information on training need areas and the training strategies such as venue, duration, time and methods of training etc.

In the present study, training needs was operationalised as the perceived areas of backyard poultry production which required updation of knowledge and skills by the backyard poultry farmers. The respondents were asked to rate the training need items on a three point continuum viz., required, somewhat required and not required with scores of three, two and one respectively. The data were tabulated and analyzed using appropriate statistical methods. The training need areas were ranked based on their Training Need Index value.

The Training Need Index (TNI) for each item was calculated using the formula,

$$\text{TNI of an item} = \frac{\text{Sum of scores obtained for an item by all the respondents}}{\text{Maximum possible score for the item}} \times 100$$

Results and Discussion

Training Need of Backyard Poultry Farmers

Table 1: Training need index and ranks of subject matter areas of backyard poultry farming operations

Sl. No	Subject matter areas	TNI	Rank
1	Balanced feed preparation using locally available / house hold ingredients	88.44	I
2	Increasing hatchability of eggs	81.48	II
3	Candling of eggs	79.83	III
4	Control of ecto-parasites using ethno veterinary preparations	78.32	IV
5	Termite production and feeding technique	73.16	V
6	Symptoms of Ranikhet disease	69.34	VI
7	Construction of low cost sheds	67.23	VII
8	Deworming of birds using ethno veterinary preparations	64.57	VIII
9	Least cost method of egg storage	62.11	IX
10	Chick rearing / Brooding management	61.50	X
11	Protecting chicks from predators	58.84	XI
12	Entrepreneurship and marketing of eggs and birds	55.44	XII

The results on areas of training need (Table 1) indicated that farmers perceived very high need of training in balanced feed preparation by using the locally available or by using house hold ingredients as this fetched a TNI of 88.44 and stood first in the rank order of the training needs. This might be due to the high cost of the commercial poultry feed which compelled them to prepare a good balanced feed by using what they have in hand to produce low cost feed. This indicated that the farmers were aware about the importance of balanced feed and they ready to prepare it locally. Similar results have been observed by Durgarani (2006) in her study on backyard poultry farmers in Kerala state of India. The subject matter areas *viz.*, increasing hatchability of eggs (TNI 81.48), candling of eggs (TNI 79.83) and control of ecto-parasites using ethno veterinary preparations (TNI 78.32) are positioned second, third and fourth ranks in their perceived training need. This might be due to the farmers' awareness about the importance of hatchability, as they get more chicks per hatch, they would get more returns; hence they want to know about the techniques to improve the hatchability and candling of eggs. One of the main problems in desi bird keeping is the ecto parasites menace which the farmers might have faced some problems struggles. Hence they might have wanted to know about the methods to get rid of the menace by using locally available ethno veterinary preparations as revealed by their attribution of fourth important training need area. The subject matter areas *viz.*, Termite production and feeding technique (TNI 73.16), Symptoms of Ranikhet disease (TNI 69.34), Construction of low cost sheds (TNI 67.23), Deworming of birds using ethno veterinary preparations (TNI 64.57), Least cost method of egg storage (TNI 62.11), Chicks rearing / Brooding management (TNI 61.50), Protecting chicks from predators (TNI 58.84) and Entrepreneurship and marketing of eggs and birds (TNI 55.44) were ranked V to XII respectively. Even all these training areas were felt important by majority of the backyard poultry farmers ranging from more than half to about two-third of them indicating that training areas may be prioritized and emphasis varied based on the felt needs of the farmers. These findings are in line with that of Kumari (2009) and Nath *et al.* (2012).

Training Strategies Preferred By the Respondents

Any training programme to be successful, it should be organized as per the preferences of the participants. The training strategies, *viz.*, preferred type / mode, venue, duration of training, method of training, convenient period / season of the year were enquired and ranking was done for each item based on percentage scores (Table 2).

Table 2: Training strategies preferred by the respondents

Sl.No	Strategies preferred	Percentage score	Rank
A	Type / Mode of training		
1.	Institutional or On campus training	10.00	III
2.	Peripatetic / On farm training	76.66	I
3.	Distance learning (Farmpublications, social media, TV, radio, etc.)	13.36	II
B	Method of learning preferred		
1.	Lecture	6.25	V
2.	Demonstrations	53.33	I
3.	Farm visit	21.66	II
4.	Study tour	6.25	IV
5.	Film shows	12.50	III
C	Duration of training		
1.	One day	78.33	I
2.	2 – 3 days	13.33	II
3.	More than 3 days	8.34	III
D	Preferred Venue		
1.	Own village	72.50	I
2.	Nearby Veterinary dispensary	11.66	III
3.	Nearby Extension service centers – VUTRC / KVKs	15.84	II
E	Preferred season for training		
1.	January – February	6.76	IV
2.	March - May	65.83	I
3.	June - September	12.00	III
4.	October - December	15.41	II

The results indicate that Peripatetic / On Farm Training was the most preferred type of training (Table 2). Likewise, they preferred demonstrations as the best method of training followed by farm tour. Peripatetic / on farm trainings and demonstrations would provide opportunities for the farmers to have training on their own places and to have hands on experience to learn the things, which would prove more effective. Similarly, visiting nearby successful farmer's field would instill confidence in the farmer's mind. With respect to duration, one-day training was the most preferred one. Farmers also preferred their own village as their most preferred venue. This would enable the farmers to attend the training after their daily routines and would not disrupt the regular agricultural operations, which are of top priority to them. March to May was the preferred season as majority of them would be free from agricultural operations and would give time to learn new things. Similar results have been observed by Durgarani (2006), Alders *et al.*, (2007) for preferred season and durations.

Conclusion

Training need assessment of backyard poultry farmers revealed that majority of farmers perceived training was needed on feed preparation/ formulation, breeding like improving hatchability and candling of eggs, health care like ecto parasite control and deworming, vaccination and preventive measures, chicks rearing/ brooding management, disease diagnosis and health care. They preferred peripatetic training/ on farm trails of one-day duration, preferably during March to May using suitable on site demonstrations at their own villages. Hence, it is necessary to design short duration training programmes based on the felt need of farmers for successful extension of backyard poultry programmes.

Conflict of Interests

There is no conflict of interest.

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