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RESEARCH ARTICLE

Training Needs Assessment of Poultry Farmers: Borich Training Need Analysis

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ABSTRACT

Poultry is very important livelihood component for the rural people. For effective and efficient poultry farming latest technologies are needed. In this regards farmer need to be trained. Past researches revealed that poultry farmers are facing many problems due to lack of information, education on many aspects. Thus, training is necessary to transmit the information and change the behavior of rural people towards poultry farming. Keeping this in view, a study was taken up on Training Need Assessment (TNA) of poultry farmers in poultry rearing practices. Present research study was conducted in GBPUA&T, Pantnagar. Total 120 respondents were selected. Descriptive research design was used. It was observed that majority of farmers were middle age group, educated upto Intermediate level having medium family size and belonged to medium income group. Majority of farmers have medium level poultry farming experiences and medium level of mass media exposure and information seeking behavior. Results also revealed that culling and selection of birds, feeding and watering management, bird, meat and egg marketing, incubation and hatching, finance and loan facilities, vaccination and preventive measures are some of the perceived training needs of poultry farmers.

Key words: *Training needs, Poultry farmers, Need Analysis, Information*

According to *Economic Survey (2016)* 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. Indian poultry sector is one of the major player with an overall growth of about 7-8 per cent per annum. In the present scenario, poultry farming is contributing nearly 21 per cent to the National egg production. (*Himeur and Ikhlef, 2022*). India stands 3rd in egg production and 5th in broiler production in the World with annual production of 88 billion eggs and 3.46 million tonnes broiler meat. (DADF, 2018). *Kumari (2009)* reported that the production of agricultural crops has been growing at a rate of 1.5–2 per cent per annum, however, that of eggs and broilers has been growing at a rate of 8–10 per cent per annum. According to *Ali (2007)* in order to reduce poverty and enhance nutrition in a developing country like India growth of poultry sector can contribute heavily and this is true with livelihood improvement for most of the tribal population in India. For effective poultry farming, effective and efficient latest technologies and practices are needed. *Razzaq et.al. (2011)* reported that the needs assessment and training for poultry farmers is the base for extension process and its activities to determining these needs in different practices of poultry farming such as egg and meat production, management practices, and disease management with all its different aspects considers an important step in planning the appropriate interventions related to poultry farming. Keeping in the view, training needs were analyzed with following objectives-

- To study the socio-economic study of poultry farmers.
- To assess the training needs of poultry farmers in backyard poultry rearing practices.

METHODOLOGY

Present research investigation was conducted during farmer's fair held in GBPUA&T, Pantnagar

2020-21. Descriptive research design was used. Total 120 poultry farmers were selected for investigation. Structured interview schedule was divided into two parts viz; general information and training needs of poultry farmers. Suitable statistical tools have been used to draw inferences using SPSS (21.0 version) for Windows. For analysis of training needs Borich model was used. In the present research investigation, training needs was operationalized as the perceived areas of poultry production which required updating of knowledge and skills by the poultry farmers.

Training need assessment: *Borich (1980)* model of need assessment was used to study the needs of poultry farmers. Training needs were measured in knowledge and performance dimensions. The Borich model was designed to determine for which competencies training is needed for a target audience. The Borich model has been widely adapted and used with a variety of audiences. Five primary steps for using a Borich model are described for use in an Extension context: (a) determine which competencies to assess, (b) participant self-assessment, (c) rank training needs, (d) evaluate current programming and revise program or competency expectations as needed.

"Knowledge discrepancy" scores and "Performance discrepancy" scores were determined as given below and multiplying the result by the average perceived importance score of all respondents gives the Weighted Discrepancy Scores (WDS) and were utilized for calculating the Mean Weighted Discrepancy Score (MWDS) for each activity. Based on the MWDS, ranking of the training need areas were made. Discrepancies with the greatest positive rank difference would have the highest priority for training of poultry farmers.

The Borich formula which was used for calculation consisted of two equations:

Equation 1: TNkn= (IN-KN) (IG)

Equation 2: Tnpe= (IN-PE) (IG)

Where,

TNkn =Training needs in knowledge dimension; Tnpe = Training needs in performance dimension; IN = Perceived importance of the skills rated by the respondent;

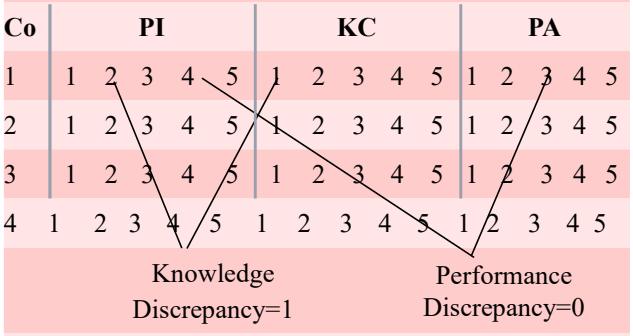
KN = Extent of knowledge of the skills rated by the respondent;

PE = Ability to perform the skills rated by the respondent;

IG =Average mean score of the relative importance of a competency as rated by all the respondents.

MWDS = (Importance rating – ability rating) × (Average importance rating)/ Number of observations

Measuring perception of three areas of perceived attainment (Knowledge, performance, and Consequences)



Co=Competency; PI=Perceived Importance;
KC= Knowledge of Competency;
PA=Performance Ability of competence.

RESULTS AND DISSCUSSION

General Information of respondents : The details of socio-economic profile of poultry farmers is presented in Table 1.

Age: The understanding gained in poultry farming is commonly reflected through age. Age of the poultry farmers, which is very important and influence the knowledge level of poultry farming. A perusal of Table 1 indicated that more than half of the respondents (67.50%) belonged to middle age group (36 to 57) followed by 16.67 per cent respondents who belonged to young age group (upto 36 years) category and rest 15.84 per cent who belonged to old age group (more than 57 years) category. It was observed that young people were less interested to take poultry farming as their livelihood option and most of them were migrated to the cities for jobs. Thus, majority of poultry farmers were middle age group.

Education: Table 1 revealed that majority of respondents (40.84%) were educated till Intermediate level followed by the 25 respondents have completed high school education and 16.67 were educated upto primary school. About 8.34 per cent of the respondents were education up to graduation and above. Thus, we can say that most of the poultry farmers were educated. Based on the observation this can be revealed that most of the poultry farmers have less scientific knowledge about the poultry.

Family size: Majority of the respondents (69.17%) have medium family size (3-6) category followed by the respondents (8.34%) who belonged to large family size (> 6 family members). It was followed by 5 per

cent of the respondents who belonged to small family size category (< 3). Thus, majority of respondents belonged to rural areas have medium family size.

Annual income: Majority of the respondents (67.50%) had medium annual income (1,08,650 to ₹1,51,300) followed by the respondents (25.83%) with low annual income (<₹1, 08,650)). Total 6.66 per cent of the respondents have high annual income (more than 1,51,300). Thus, majority of respondents belonged to medium and low-income group. These findings are similar to the findings of *Sharma et.al, (2018).*

Poultry experience: About 65.00 per cent of the respondents had medium poultry farming experience (9-25 years), followed by 19.16 per cent of the respondents who had high poultry farming experience (more than 25 years). Total 15.84 per cent of the respondents have low poultry farming experience (less than 9). These findings are in line with the findings of *Sun et. al., (2022).* Most of the respondents fell in medium level of experience, this indicates, they were having higher indigenous knowledge and work experience in poultry farming.

Land holding: Majority (56.67%) of the respondents are holding less than 5 acres of land. This is harsh reality on the village, where farmers are either small or marginal with very little livelihood and thus dependent on additional income from other sources like poultry farming. Land is considered as one of the imperative socio-economic indicators in the agricultural sector as well as for other occupations. It was observed in the study area that the majority of the land was un-irrigated, rocky and bushy, which was infertile. It can be concluded that the majority of the respondents fell in low category of land holding.

Extension contacts: Table 1 revealed that the majority of the respondents (50%) were in the medium category of extension contact followed by 37.50 per cent in low and 12.50 per cent in the high category. It was observed that neighbors, progressive farmers and Gram Pradhan were generally contacted extension functionaries. Government functionaries were less sought attainment of information by the poultry farmers. This might be due to the less reliability attached by the farmers to these functionaries, non-cooperative approach of the Government personnel and lack of awareness among the farmers.

Social participation: Table 1 reveals that the majority of the respondents (50.84%) were having no membership; while, 26.67 per cent of the respondents were having membership in one social organizations. Total 14.17 per cent of the respondents have membership in two social organizations. Only 5 per cent of the respondents were having membership in more than

Table 1: Distribution of respondents according to socio-economic characteristics (N=120)

Categories	No.	%
Age		
Young age (upto 36 years)	20	16.67
Middle age (36 to 57 years)	81	67.50
Old age (more than 57 years)	19	15.84
Education		
Can Read and Write	11	9.17
Primary school	20	16.67
High school	30	25
Intermediate	49	40.84
Graduate and above	10	8.34
Family size		
Small (<3)	83	22.50
Medium (3-6)	27	69.17
Large (>6)	10	8.34
Annual income		
Low (< ₹1, 08,650)	31	25.83
Medium (₹1,08,650 to ₹1,51,300)	81	67.50
High (> ₹ 1,51,300)	8	6.66
Poultry farming experience		
Short (<9 years)	19	15.84
Medium(9-25 years)	78	65.00
Long (>25 years)	23	19.16
Land holding		
Less than 5 acres	68	56.67
5-10 acres	28	23.34
10-15 acres	15	12.50
15&above	9	7.50
Social participation		
No membership	61	50.84
Membership in one organization	32	26.67
Membership in two organizations	17	14.17
Membership in more than two org.	6	5
As an office- bearer	4	3.34
Extension contact		
Low	45	37.50
Medium	60	50
High	15	12.50
Information seeking behaviour		
Low	27	22.50
Medium	71	59.16
High	22	18.34
Mass media exposure		
Low	19	15.83
Medium	79	65.84
High	22	18.33

two organizations. Total 3.34 per cent respondents were having participation in social organization as an 'Office- bearer'. From the results, we can interpret that rural people were socially aware about some of the organizations and having the social participation in at least one of the social organizations like, *Gram Panchayat Samitis*, Cooperative societies, Farmers' Organization, etc. Majority of rural people are unaware about many aspects and social organizations.

Information seeking behavior: Majority of the respondents (59.16%) had medium level of information seeking behavior followed by 22.50 per cent of those who had low level of information seeking behavior and 18.34 per cent of the respondents had high level of information seeking behavior. Thus, it can be concluded that majority of poultry farmers have medium level of information seeking behavior.

Mass Media Exposure: Majority of the respondents (65.84%) had a medium level of mass media exposure followed by 18.33 per cent of respondents who have high and 15.83 per cent have low level mass media exposure. It was also found that television and mobile phone were generally used mass media channels to update their knowledge in poultry. The probable reason might be that less literacy, poor affordability to purchase T.V., radio, electricity, etc., lack of awareness and more interested to watch entertainment programmes instead of instructional programmes within the available time after the farming activities. The findings of the present study are in line with the study of *Sharma et.al. (2021).*

Perceived training needs of Poultry farmers: Needs emerged as a critical factor in poultry farming. It helps the farmers to make wise decisions about innovative practices. However, specific training needs as perceived by the poultry farmers.

This study assessed the training needs of the poultry farmers. The most important trainings need of the poultry farmers were determined by the highest rank. To determine the highest rank of needs, mean weighted discrepancy score (MWDS) was used (Table 2). Training needs of poultry farmers in both dimension viz. knowledge and performance dimension were expressed. The poultry farmers perceived that Culling and Selection of birds (Rank-1) was the most important training need followed by Feeding and watering management (Rank-2) and Bird, meat and egg marketing (Rank-3). Incubation and hatching and Finance and loan facilities should be needed for poultry farmers. Maximum respondents reported that vaccination and preventive measures are also one of the important training needs for poultry farmers. The respondents gave chicks rearing and brooding management as rank of eight. People were ignorant of the various apple varieties. Majority of respondents were unaware about preparation and selection of site for orchard (Rank-6). Feed preparation and formulation that required training for poultry farmers followed by Compost preparation (Rank-10). Majority of respondents perceived to receive training on Breeding and mating aspect (Rank 11) and value addition (Rank 12).

Table 2. Perceived training needs of poultry farmers

Needs	TNkn	TNpe	DS	MWDS	Rank
Feed preparation and formulation	1.53	2.13	1.59	6.12	9
Disease diagnosis and health care	1.15	2.17	1.87	4.21	15
Vaccination and Preventive measures	2.19	3.23	2.13	6.51	7
Poultry shed and Housing management	1.77	3.86	2.82	7.14	4
Finance and loan facilities	2.49	1.62	1.13	6.84	6
Feeding and watering management	2.82	3.12	1.23	8.15	2
Chicks rearing and Brooding management	2.52	2.15	1.23	6.16	8
Culling and Selection of birds	2.38	4.19	2.18	8.67	1
Bird, meat and egg marketing	1.48	3.58	2.07	7.30	3
Value addition	2.33	2.53	1.71	5.37	12
Layer management	2.37	1.32	2.31	4.15	16
Incubation and hatching	1.46	3.24	2.77	6.54	5
Compost preparation	2.34	1.65	3.12	5.87	10
Chick purchasing	1.33	1.67	2.18	4.37	13
Breeding and mating aspect	2.07	2.56	3.89	5.62	11
Maintenance of records and accounts	1.45	3.21	2.67	4.32	14

Thus, in rural areas poultry farmers were unaware about various innovative practices as culling and selection of birds as they have less knowledge about different varieties of hen. Various innovative feeding and Management practices are invented by scientists but in rural areas poultry farmers do not know and want training on various aspects. Poultry farmers are also wanting training on marketing aspects viz; Bird, meat and egg marketing. People don't know about different online portals for marketing where they can purchase and sale their materials. Poultry farmers are also not aware about the Poultry shed and Housing management practices. Incubation and hatching practices are also important steps in poultry rearing but in India majority of people are not aware about many aspects.

CONCLUSION

On the basis of above discussion, this can be concluded that poultry farmers need training on various aspects as culling and selection of birds, feeding and watering management, bird, meat and egg marketing, incubation and hatching, Finance and loan facilities, Vaccination and Preventive measures etc. Extension workers should provide the information to poultry farmers on above aspects. Poultry farmers were unaware on many aspects. Through the proper training on right time farmers can take the information for their welfare. Training can empower the poultry farmers through providing them knowledge, information and education on many aspects. Training is one of the important tools in extension to empower the rural communities through changing their behavior and providing them knowledge and information on various aspects.

CONFLICTS OF INTEREST

The authors have no conflicts of interest.

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