



RESEARCH ARTICLE

TRAINING NEED AREAS OF POULTRY FARMERS AND THEIR PREFERENCE REGARDING
METHODS, VENUE, TIME AND PERIOD OF TRAINING

Balvir Singh¹, Ram Bahal Rai¹, Kuldeep Dhama^{1*}, Hamid Ali¹,
Thukkaram Damodaran², Sandip Chakraborty³ and Ashwani Kumar Singh¹

¹Division of Pathology, Indian Veterinary Research Institute, Izatnagar, Bareilly (U.P.) – 243122

²Central Saline Soil Research Institute, Regional Research Station, Lucknow (U.P.)

³Animal Resources Development Department, Pt. Nehru Complex, Agartala, Pin – 799006, India

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ABSTRACT

Poultry farming as a business had tremendous scope for self-employment on one hand and could diversify the agriculture production system on the other hand. Training is very essential for capacity building and for strengthening the business economically by developing scientific attitude to increase knowledge status and making aware about present situation of sector throughout country and worldwide. Present study was carried out under World Bank funded ICAR research project, National Agricultural Innovative Project, Component- III in the Raebareli and Barabanki districts of Uttar Pradesh, India to identify the training need areas and farmers preference regarding methods, venue, time and period of training activities. Information was collected with the help of well-constructed questionnaire from a list of poultry farmers selected. The data were tabulated and analyzed using appropriate statistical method. Training need areas were classified into more important and less important based on the average mean score value, which was 9.18. Out of sixteen activities of poultry husbandry five were found to be most important training areas among farmers viz., feed formulation; vaccination and preventive measures; finance and loan facilities; brooding management; disease diagnosis and health care. Maximum 89.5% farmers acquired training during the period January to March; 3.5% during April to June (3.5%); 2.5% during July to September; and 4.5 % during October to December. Majority of the farmers desired training by on site demonstration method (74.5%), 15.5% by using exposure visits, 5.5% by lecture with field trip, and 4.5 % by group discussions. This suggests that site demonstrations provide multi-session interaction with experts at their farm during frequent visit at any stage of development. Largest part of the farmers (83.5%) recommended village name as venue of the training programme, as an alternative of Krishi Vigyan Kendra (KVK) (14%) and Block / Tahsil / District headquarter (2.5%). The 78.5% farmers suggested that the duration of the training programme should be for 2-3 days, followed by 19% for one day, 1.5% for 4-5 days and 1.0% for one week or more. It can be concluded from this study that all these aspects when studied vividly will enable the farmers to perform poultry farming more efficiently to enhance their own household income, which is crucial for obtaining sustained livelihood security and poverty alleviation.

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INTRODUCTION

Agricultural sector provides 28% of the total gross domestic product (GDP) to the Indian economy and out of this 17% is contributed by poultry industry alone. In just four decades from a mere backyard activity the Indian poultry industry has transformed into a major commercial activity. The major planks of such transformation are sustained profit markets alongside technological development (Bootwala, 2005; Saran *et al.*, 2005). In order to reduce poverty and enhance nutrition in a developing country like India growth of poultry sector can contribute heavily (Gol, 2002; Ali, 2007). For this purpose training is very essential for capacity building and for strengthening the business economically by developing scientific attitude to increase their knowledge status and aware present situation of sector throughout country and worldwide. It also creates interest of trainees in the poultry rearing if training is based on their actual need (Bhattarai, 2008). Preference regarding period, methods and venue of training is also important for good perception. Meticulousness of farmer and their education status are also accountable for adoption of technological interventions (Rosaria, 1997). The main purpose of

training is to bring desired change in the attitude/approach of farmers (Brough, 2004). It is important and must make an apparent difference in the activities of trained farmers under the same situation and having same resources, a person who has more training must behave differently from a person who has less of it or not had it at all. Knowledge is essential for proper utilization of genetic stock, available resources, economic information and scientific poultry husbandry practices by the farmers to develop their business successfully and is ultimately linked with the increased socio-economic status (Boice, 2005; Eade, 2007; Sharma, 2010). The capacity of the trainees in acquiring knowledge and technological skill depends on the receptivity of them. Training is important component of National Agricultural Innovative Project, Component-III, by which IVRI, Izatnagar facilitate Holistic approach for improving livelihood security through poultry farming in Barabanki and Raebareli districts of Uttar Pradesh (U.P.), India. Present study was designed to identify the training need areas and farmers preference regarding methods, venue, time and period of training activities, thus may be useful in developing a strategic capacity building effective model for different specialized integrated farming systems with suitable, cost effective and eco-friendly innovative interventions.

*Corresponding author: Kuldeep Dhama, Division of Pathology, Indian Veterinary Research Institute, Izatnagar, Bareilly (U.P.) – 243122.

MATERIALS AND METHODS

Study Area

The present study was carried out under World Bank funded ICAR research project National Agricultural Innovative Project, Component- III in the Raebareli and Barabanki districts of U.P. These districts are included in the 150 disadvantaged districts of the country identified by Planning Commission of India. Both districts are selected based on their but also for poor standard of living for the poor due to limited livelihood opportunities.

training need. The training required in the particular activities was ranked based on the mean training score. The specific area having its mean greater or lesser than average mean score value was considered as more important and less important areas respectively. The result revealed that out of sixteen activities of poultry husbandry five activities were found to be most important training areas among farmers. The first rank was shared by feed preparation/ formulation.

The second rank went in the favour of vaccination and preventive measures while finance and loan facilities squeeze the third rank. The chicks rearing/ brooding management, disease diagnosis and health care were the more important training areas according to their

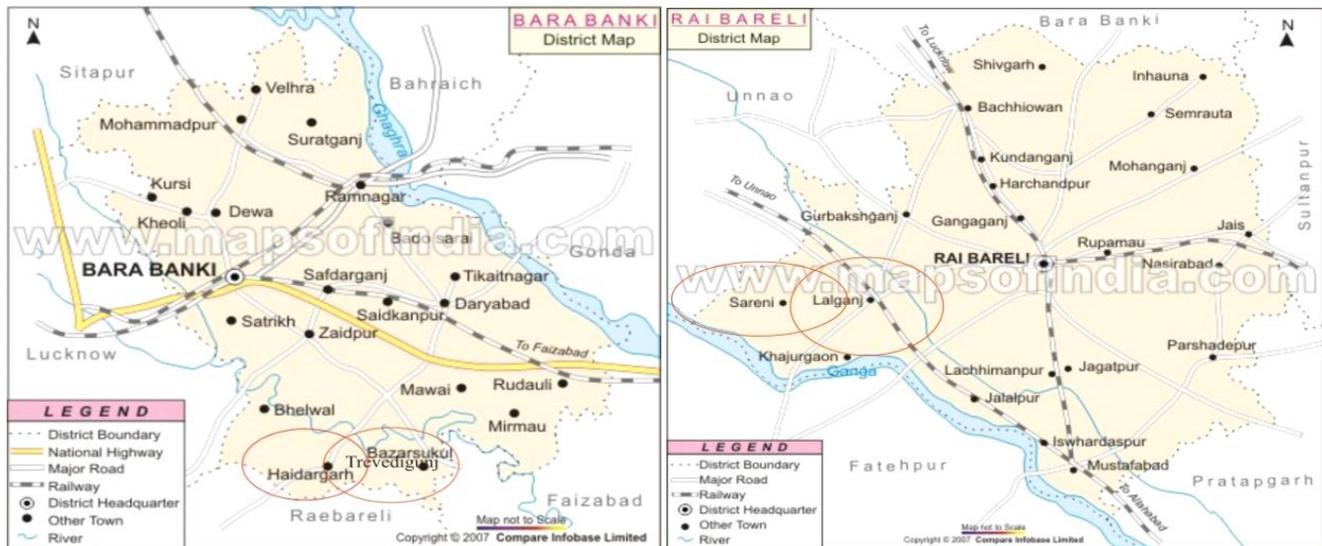


Fig.1. Map of study area district Barabanki and Raebareli of Uttar Pradesh

Table 1. Training needs areas among poultry farmers

S. No.	Training need area	Trainees farmers			Rank
		Male	Female	Overall	
1	Feed preparation / formulation	100	100	100.0	I
2	Vaccination & Preventive measures	93	100	96.5	II
3	Finance and loan facilities	100	91	95.5	III
4	Chicks rearing / Brooding management	93	96	94.5	IV
5	Disease diagnosis & health care	89	96	92.5	V
6	Poultry shed & Housing management	79	94	86.5	VI
7	Feeding & watering management	82	90	86.0	VII
8	Culling/ Selection of birds	78	73	75.5	VIII
9	Value addition	15	66	40.5	IX
10	Layer management	33	34	33.5	X
11	Bird/meat/ egg marketing	28	35	31.5	XI
12	Incubation/ hatching	12	41	26.5	XII
13	Compost preparation	13	24	18.5	XIII
14	Chick purchasing	12	18	15.0	XIV
15	breeding / mating aspect	13	16	14.5	XV
16	maintenance of records/accounts	10	12	11.0	XVI
	Grand Total	850	986	918	

Sampling procedure and data collection

A list of poultry farmers was prepared and essential total enumeration was done. Information was collected with the help of well-constructed questionnaire, containing the information on training need areas and their preference regarding venue, duration, time and methods of training, and several factors inhibiting the pace of poultry backyard sector/ constraints faced by poultry farmers. The response was collected on a two-point scale, i.e. yes or no. Frequencies of activities were worked out and expressed in percentage. The data were tabulated and analyzed using appropriate statistical method. Training need areas were classified into more important and less important based on the average mean score value.

RESULTS AND DISCUSSION

The training needs of poultry farmers for major activities are presented in the Table 1. The average mean score was 9.18 for

merit/rank. The comparative less important areas required training in the order were as value addition, layer management, bird/meat/egg marketing aspects, incubation/ hatching, compost preparation, chick purchasing, breeding/mating aspect, maintenance of records/ accounts. However, knowledge about breeding / mating aspect and brooding among rural poultry is very crucial which can increase productivity as well as sustainability of the system. Selection of cockerel and replacement of male in the flock is compulsory to reduce inbreeding effect at the farm (Gawande et al., 2007; Kapur, 2008). It could be observed from the results depicted in Table 1 is that the value addition, incubation/ hatching and compost preparation are the most important training need areas in which farm women participation is high and those areas are felt to be the fundamental areas. Training activities are very important to pick up their knowledge and aptitude, to increase acceptability/adoption of new scientific/ modern interventions. Adoption of technologies was better among higher educated mass. Gender had significant role in finance

activities. Males show greater interest in the finance and loan facility training activities to search out economic support to generate resources at larger scale and to take risk for adoption at vital scale. However, counterpart females are generally lack awareness about the advantages of government economic support (Rajika and Smith, 1997). Women are lacking skill in handling and managing the credit, decision-market abilities (Rangnekar, 1998; Singh *et al.*, 2010). They have low risk taking ability and they are not able to develop their enterprise. Thus, programmes to develop motivation and impart skill are needed to take up poultry enterprises. It requires more concentrate efforts to design training specifically for female counterpart, which takes care of gender issues as well. These findings are in agreement with the findings of Helon *et al.*, (1990) and Singh *et al.*, (2010). It was observed that maximum (89.5%) farmer require training during the period January to March, as they do not have more agriculture work. However, rest of them suggested the period April to June (3.5%), July to September (2.5%), and October to December (4.5%) for organizing the training. During the July – September period all the farmers engage in paddy crop routinely in nursery growing, transplanting and other work.

Majority of the farmers desired training by on site demonstration method (74.5%). However, rest requires training by using the different extension methods like exposure visit (15.5%), lecture with field trip (5.5%) and group discussion (4.5%). These findings were in agreement with report of Taneja (1998). Site demonstrations provide multi-session interaction with expert at their farm during frequent visit at any stage of development. On farm demonstrations would help in better appreciation and acceptance of scientific interventions/modern practices. Largest part of the farmers (83.5%) recommended village name as venue of the training programme, as an alternative of farmers' training institute / KVK (14%) and Block / Tahsil / District headquarter (2.5%). At their village they attend the training program without any problem. Women are more comfortable to work in their village or nearby place, as they have to take care of the children besides other work (Taneja, 1998). Training programme therefore should be conducted in the village itself so that farm women did not have to leave their house for long time. The location and timing should be such that it convenient to the participants. It is necessary that these training activities must reach to the right person at the right time and right place for efficient implementation of the programmes (Menaka *et al.*, 2002).

The 78.5% farmers suggested that the duration of the training programme should be for 2-3 days, followed by 19% for one day, 1.5% for 4-5 days and 1.0% for one week or more. Similar results were also reported by Mishra and Bhaiya (2000), as they recommend short duration training program. The training programmes are to be action oriented, of short duration and should deal with a few subjects

at a time (Rengnekar, 1997). It was also observed that women were hesitate and lacking in communication skill through out area. Women were superior in decision making pertaining to homestead activities. However, 70-96% decisions are executed by joint venture of wife and husband (Paul and Saadullah, 1991; Amin *et al.*, 2010). Preference regarding period, methods and venue of training among poultry farmers are presented in Table 2.

Generally, farmers were wavering to adopting exotic/improved birds and routine operations. Several farmers prefer indigenous birds because; they are less demanding and less prone to be disease and internal / external parasitic infestation. Moreover, the native birds are more sustainable in the prevailing circumstance. Several years after independence due to wrong planning, the status of rural poultry development in targeted area is very poor. It might be due to the reason that the producers do not adopt improved breed and technology at desired level because of un-availability and inadequate supply of chicks, low genetic potential of birds, high mortality during extreme winter and summer, lack of loan facilities and high rate of interest, costly feed, inadequate knowledge about scientific feeding, health care and management etc (Mehta *et al.*, 2002; Pica-Ciamarra and Otte, 2009). Apart from this necessary facilities regarding diagnosis, prevention, vaccination and control measures for safeguarding health and production of poultry need to be extended in village areas (Kataria *et al.*, 2005; Dhama *et al.*, 2008a,b,c; Dhama *et al.*, 2011; Dhama *et al.*, 2013a,b,c,d,e,f). This would help in adaptation and propagation of popular poultry farming as a popular business and source of regular and sustained income in rural areas.

Conclusion and Implications

It is revealed that majority of farmers need more training on health care, feed preparation/ formulation, vaccination and preventive measures, credit facilities, chicks rearing/ brooding management, disease diagnosis and health care were the more important training areas according to their merit/rank. They preferred training of 2-3 days duration, during January to March using various extension methods especially through on site demonstration at their villages. Hence, it is necessary to provide a short duration training programmes based on the felt need of farmers. To overcome the constraints, scientific feeding, supply of feed through cooperative societies, credit and marketing facilities, infrastructure and institutional support, veterinary aid and other appropriate technologies suitable for area should be taken into consideration. Empowering educated youth through skill-up graded training on various aspect of poultry rearing, meat processing and marketing should be one of the important business enterprises of our development programme. Under the project, input like quality chicks of broiler and rural poultry along with some critical input also provided to initiate the poultry farming.

Table 2. Preference regarding period, methods and venue of training among poultry farmers

S.N.	Particulars	Trainees /farmers		
		Male	Female	Overall
1	SUGGESTED MONTH FOR TRAINING			
	January – march	88	91	89.5
	April – June	4	3	3.5
	July- September	3	2	2.5
2	METHOD OF TRAINING			
	Site demonstration	72	77	74.5
	Exposure visit at well organized farm	15	16	15.5
	Lecture and field trip	7	4	5.5
3	VENUE OF THE TRAINING			
	Village	70	97	83.5
	University/ KVK/Govt Poultry Farm	25	3	14
	Block/ Tahsil/ District headquarter	5	0	2.5
4	DURATION/PERIOD			
	1 day	24	14	19
	2-3 days	71	86	78.5
	1 week	5	0	2.5

Development of women extension worker team is recommended and provide in the study area for effective delivery system. All these aspects will enable them to perform poultry farming more efficiently to enhance their own household income. Poultry farming as a business had tremendous scope for self-employment on one hand and could diversify the agriculture production system on the other hand. Promotion of poultry farming activities in rural areas would provide good household income, sustained livelihood security, nutritional benefits and alleviate poverty.

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REFERENCES

- Ali, J. 2007. Livestock sector development and implications for rural poverty alleviation in India. *Livestock Res. Rural Develop.*, 19(2).
- Amin, H., T. Ali, M. Ahmad, and M.I. Zafar, 2010. Gender and development: Roles of rural women in livestock production in Pakistan. *Pak. J. Agri. Sci.*, 47(1): 32-36.
- Bhardwaj, N. and B. Kumar, 2002. Entrepreneurship development of hill women through dairy. Proceeding of International Symposium on "Livestock production systems for sustainable food security and livelihoods in mountain areas" organized by G.B. Pant University of Agriculture & Technology, Pantnagar, Dec. 30-31, 2002, Pantnagar, Uttarakhand, Souvenir, pp: 100.
- Bhattacharai, T.C. 2008. Poultry production scenario of Nepal. Paper presented in Poultry Entrepreneurs' Forum, Kathmandu with collaboration with World Poultry Science Association.
- Boice 2005. Better Building Blocks. *Advancing Philanthropy*, 50:16-19.
- Bootwala, S. 2005. Poultry and the population on the Asian subcontinent. *World Poultry*, 21(4): 10-12.
- Brough, P. 2004. Systemic capacity building: a hierarchy of needs. Oxford University Press. pp. 336-345.
- Dhama, K. and M. Mahendran, 2008b. Technologies and advances in diagnosis and control of poultry diseases: safeguarding poultry health and productivity. *Poultry Technology*, 2(12): 13-16.
- Dhama, K., M. Mahendran and S. Tomar, 2008a. Poultry health care and management strategies for socio-economic development of rural farmers. *Poultry World*, 2(12): 24-29.
- Dhama, K., M. Mahendran, P.K. Gupta and A. Rai, 2008c. DNA Vaccines and their applications in Veterinary Practice: Current Perspectives. *Vet. Res. Commun.* 32(5):341-56.
- Dhama, K., M.Y. Wani, R. Deb, K. Karthik, R. Tiwari, R. Barathidasan, A. Kumar, Mahima, A.K. Verma and S.D. Singh, 2013a. Plant based oral vaccines for human and animal pathogens – a new era of prophylaxis: Current and future perspectives. *J. Exp. Biol. & Agri. Sci.*, 1(1): 1-12.
- Dhama, K., S. Chakraborty and R. Tiwari, 2013d. Panchgavya therapy (Cowpathy) in safeguarding health of animals and humans – A review. *Res. Opin. Anim. Vet. Sci.*, 3(7): 195-208.
- Dhama, K., S. Chakraborty, A.K. Verma, R. Tiwari, R. Barathidasan, A. Kumar and S.D. Singh, 2013b. Fungal/Mycotic diseases of poultry – Diagnosis, treatment and control: A review. *Pak. J. Biol. Sci.* 16(23): 1626-1640.
- Dhama, K., S. Chakraborty, Mahima, M.Y. Wani, A.K. Verma, R. Deb, R. Tiwari, and S. Kapoor, 2013e. Novel and emerging therapies safeguarding health of humans and their companion animals: a review. *Pak. J. Biol. Sci.*, 16(3): 101-111.
- Dhama, K., S. Chakraborty, R. Tiwari, A. Kumar, A. Rahal, S.K. Latheef, M.Y. Wani, and S. Kapoor, 2013c. Avian/bird flu virus: poultry pathogen having zoonotic and pandemic threats – a review. *J. Medical Sciences*, 13(5): 301-315.
- Dhama, K., V. Verma, P.M. Sawant, R. Tiwari, R.K. Vaid and R.S. Chauhan, 2011. Applications of probiotics in poultry: enhancing immunity and beneficial effects on production performances and health - A review. *J. Immunol. Immunopathol.*, 13(1): 1-19.
- Eade, D. 2007. Capacity Building an Approach to People-Centered Development. UK and Ireland: Oxfam. pp. 35.
- Gawande, S.S., N. Kalita, N. Barua and K.K. Saharia, 2007. Indigenous chicken farming in rural conditions of Assam, India. *Family Poultry*, 17(1-2): 15-29.
- Gol, 2002. Tenth Five Year Plan (2002-2007). Planning Commission, Government of India, New Delhi.
- Helon, S., G. Perumal, and V. Alagesan, 1990. Training needs of small farm families in dry-farming activities. *Tamil Nadu J. Ext.*, 1(1&4): 127.
- Kapur, V. 2008. Pioneering Micro-Entrepreneurship through Poultry Breeding and Distribution in Rural India. *Innovations – Technology, Governance, Globalization*, 3(1): 37-51.
- Kataria, J.M., M.C. Mohan, S. Dey, B.B. Dash, K. Dhama 2005. Diagnosis and immunoprophylaxis of economically important poultry diseases: A Review. *Indian J. Anim. Sci.* 75(5): 555-567.
- Mehta, R., R.G. Nambiar, S.K. Singh, S. Subrahmanyam and C. Ravi, 2002. Livestock industrialization, Trade and Social-Health-Environment Issues for the Indian poultry sector. *Annex II, Part of IFPRI-FAO, Livestock Industrialization Project.*
- Menaka, R., P. Banaula, S.P. Singh, and K.K. Mishra, 2002. Women-the principal farmer in hills and importance of extension activities to them. Proceeding of International Symposium on "Livestock production systems for sustainable food security and livelihoods in mountain areas" organized by G.B. Pant University of Agriculture & Technology, Pantnagar, Dec. 30-31, 2002, Pantnagar, Uttarakhand, Souvenir, pp: 36.
- Mishra, A.K. and B.K. Bhaiya, 2000. Labour use pattern in animal husbandry practices. *Agriculture Extension Rev.*, 11: 18.
- Paul, D.C. and M. Saadullah, 1991. Role of women in homestead of small farm category in an area of Jessore, Bangladesh. *Livestock Res. Rural Develop.*, 3(2). <http://www.cipav.org.co/Irdd/Irdd3/2/bang1.htm>.
- Pica-Ciamarra, U. and J. Otte, 2009. Poultry food security and poverty in India: Looking beyond the farm gate. Pro-Poor Livestock Policy Initiative, pp. 1-14.
- Rajika, B. and J. Smith, 1997. Rural women in India: Assessment of Educational constraints and the need for new educational approaches. *J. Res. Rural Edu.*, 13(3): 183-196.
- Rangnekar, S. 1998. Women in livestock production – with special reference to hill areas. Proceedings of National Symposium on constraints and opportunities in livestock development in Himalayan region, July 6-7, 1998, IVRI, Mukteswar-263 138, Nainital, Souvenir, pp: 34.
- Rengnekar, S.D. 1997. Income enhancement and value addition by crop livestock integration, extending benefit directly to women. Proceedings of National Workshop on Technological enhancement of women in Agriculture, Dec. 1997 at M.S. Swaminathan Foundation, Chennai, India, Souvenir, pp. 51.
- Rosaria, K.J. 1997. Processing to Boom in India. *Poult. Int.*, 36(8): 16-20.
- Saran, S., P.V.K. Sashidhar, K.V.H. Sastry and R. Singh, 2005. Indian poultry industry: Current scenario and future prospects: A review. *Ind. J. Anim. Sci.*, 75(8): 992-998.
- Sharma, B. 2010. Poultry production, management and bio-security measures. *The J. Agri. Environ.*, 11: 120-125.
- Singh, B., K.S. Rao, R.K. Maikhuri, S.S. Nautiyal, D. Kumar, A.K. Ghosh, S.N. Yadav and N. Kaur, 2010. Training need of farm women in Kumaon Himalaya and their preference regarding dairy husbandry practices and management. *Ind. Buffalo J.*, 6(1): 29-35.
- Taneja, V.K. 1998. Women in livestock production and economics. *Indian Farming*, 7: 55.
