ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 5.2
IJAR 2015; 1(10): 694-696
www.allresearchjournal.com
Received: 25-07-2015
Accepted: 29-08-2015

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Analysis of extent of participation of farmers and their families in brooder management activities of commercial poultry farm

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Abstract
A study was conducted at the Namakkal district in Tamil Nadu to understand the extent of participation of poultry farmers and their families in brooder management and the technical inventories associated with it. A sample of 42 poultry farmers was surveyed using an interview schedule and data were analysed using appropriate statistical tools. The results revealed that the major level of participation was from the family head followed by his wife and labour. The role of head could be more as the activities needs constant supervision. The technical inventory for the brooder activities were available for all brooder activities. Extension personnel and Technology developers felt that the inventories were sufficient. While for the farmers it was not so, indicating that study has to be done to understand the reason for the gap developed between the farmers and extension personnel and technology developers.

Keywords: brooder management, children, head, inventory, wife.

1. Introduction
Poultry is an important part of rural life in several developing countries. Better management results in better productivity. Effective poultry management is essential for overall development and health of the bird. The overall poultry performance is dependent on several management practices. Brooder management is one of the important aspects in management that starts from the first day one to seventh day. The early / developmental stage becomes critical for the overall result and growth of the bird. Hence, care should be taken right from day one. Effective brooding management includes providing the chicks with the right temperature, relative humidity, air quality, good quality feed and water. All aspects in brooder management when followed collectively will result in good early development of skeletal size, immune system and cardiovascular system and also improves appetite. Therefore, preparation brooder management begins before the arrival of chicks to poultry farm (Prabakaran, 2003) [5]. Understanding the importance of brooder management, a study was initiated to identify the level of participation of poultry farmers and their families in brooder management activities. In relation with this, the technology inventories meeting the requirement of poultry farmers, extension personnel and technology developers were also studied.

2. Methodology
The study was conducted at the Namakkal Block of Namakkal District in Tamil Nadu. Based on the number of poultry farmers in each Panchayat, the Panchayats were grouped into three categories and 42 poultry farmers were chosen using the principle of stratified sampling. The extension personnel's were the extension officers of state animal husbandry departments, NGOs and input supply agencies and the technology developers included all the 30 scientists of Veterinary College and Research institute, Namakkal. The poultry farmers were asked to indicate the degree to which they are actually involved in each poultry farm activity on a three - point continuum, which were regularly, occasionally and never and were scored as 2, 1 and 0 respectively. This formed the index to the extent of participation in each of the activities for a particular poultry farmer. The technology inventories were gathered from review of literature and in consultation with scientist and extension personnel. They both were asked to indicate whether the technology available would meet the requirement of

particular activity and were assigned score '1' for yes and zero for no. The data were collected from the respective poultry farmers, extension personnel's and poultry farmers with a well-structured and pre- tested interview schedule prepared for the respective respondents and analysed accordingly.

3. Results and Discussion

The results from table 1 revealed that participation of family head was the most, followed by his wife, labour and children. The contributions of wife in all eight activities were less than 50 per cent of her counterpart. Only in two activities *viz.*, removal of brooder and cleaning of brooder, the level of participation of labour was found more than that of women. Similar results were recorded by Paul *et al.,* (2015) [4] that more than one-third of the women in the family cleaned the animal shed. While in all other activities the level of participation of women and labour were more or less same as these activities were more labour dependent. This is in concordance with the findings of Javed *et al.,* (2006) [2]. The level of participation of children in brooder management was less as they might be studying. Maximum participation of head was in brooder construction followed by medication to chicks and brooder heat adjustment. The study conducted by Mishra, *et al.,* (2008) [3] also revealed same about male members of the family contributed cent per cent in vaccination of animals. Since all the activities in brooder management had scientific intervention in poultry production that needed adequate precaution in carrying out these activities expect for cleaning and removal of brooder these activities had higher level of participation from family head than others in the family. Adisa and Akinkunmi (2012) [1] also observed that the extent of participation of women in commercial poultry activities in the study area was low.

Table 1: Extent of participation of farmers and their families in brooder management of poultry farming

n=42

S. No	Activity	Head	Wife	Others				Total	H- Value
				C	B	M	L		
1.	Brooder construction – DL	69	17	6	2	-	2	10	
2.	Pre- heating before arrival	26	7	6	5	-	7	18	
3.	Activities after arrival of chicks								
a.	Checking for abnormalities	53	16	6	4	-	12	22	
b.	Filling the waterers	53	29	6	4	-	26	36	
c.	Filling the feeders	53	29	6	4	-	26	36	14.5**
d.	Introducing chicks to water	-	-	-	-	-	-	-	
4	Brooder heat adjustment	56	26	9	4	-	21	34	
5	Cleaning of brooder – DL	37	21	2	2	-	44	48	
6	Expanding of brooder size DL	44	30	2	2	-	28	32	
7	Medication to chicks	59	26	8	4	-	17	29	
8	Removal of brooder – DL	49	15	2	2	-	32	36	

** Significant at 1% level (Table value at 1% level: 9.1)

C: Children, B: Brother, M: Mother, L: Labour DL- Deep litter

With regards to the technical inventory in the brooder management studied among the poultry farmers, extension personnel and technology developers, the technical inventory for all the activities in brooder management was given in table 2.

The technology developers opined that the inventories definitely would meet cent percent requirement for the brooder management activities. Extension personnel's also perceived in a similar manner except for three activities namely introducing the chick to water, cleaning of brooder, expansion of brooder size, while the percentage ranged between 21 and 86 among the poultry farmers. This shows that the decrease in flow of information from the top level to the grass root level indicating that the dissemination of information should be improvised in ways that the technology reaches every farmer at the base level.

Table 2: Technical inventory of poultry regarding brooder management

S. No	Activities	Technology	Meets the requirement as perceived by					
			Farmers n = 42		Extension Personnel n = 30		Technology Developers n = 30	
			No	%	No	%	No	%
1	Brooder construction or arrangement in deep litter house	Brooder space to 45 to 65 cm^2 per chick is recommended. A hover of 1.8 m diameter can hold 500 chicks. However the number of chicks brooded under each hover should be as per the recommendation of the manufacturers. Fix the brooder guard to prevent the straying of baby chicks	21	50	30	100	30	100
2	Pre – Heating before arrival of chicks	Pre – heating arrangement by lighting the bulbs in the brooder 24 hours before the arrival of chicks	17	40.5	30	100	30	100
3	Activities after arrival of chicks							
A	Checking for abnormalities input purchase	Checking of abnormalities	11	36.6	30	100	30	100
B	Filling the feeder	Keeping the feeder always with its capacity for 2 – 3 days with chick mash	33	78.6	30	100	30	100

C	Introducing the chicks to water	Filling the waterer with boiled water to its full capacity for 2-3 days	28	66.6	30	100	30	100
D	Introducing the chick to water	Acclimatising the chick for drinking water by taking the chick gently by hand and dipping its beak in waterer and allow it in the brooder	9	21.4	25	83.33	30	100
4	Brooder heat adjustment	Provision of uniform heat to all the chicks by adjusting the height of the light which makes the chicks to spread all over the brooder evenly	9	21.4	30	100	30	100
5	Cleaning of brooder in deep litter	Cleaning of brooder in deep litter system by replacing newspaper, wet litter and waterer and also clean the waterer with water and disinfectant	20	47.6	29	83.25	30	100
6	Expanding of brooder size in deep litter	Proportionate expansion of Brooder as the chick grow medicine in feed as well as in water and as per the nature of the medicine	22	52.3	25	83.25	30	100
7	Medication of chicks	Medication of chicks by mixing the medicine in feed as well as in water and as per the nature of the medicine and advice of the vet.	24	57.1	30	100	30	100
8	Removal of brooder in deep litter	Brooder removed in deep litter system after 7 days in summer and 15 days in winter	36	85.71	30	100	30	100

4. Conclusions

It was gratifying to note that there were different activities in which share of male and female participation were different. Maximum level of participation was shown by the family head, followed by his wife and labour. These activities were also found to be labour intensive activity that requires supervision while execution. The technology inventory was available for all the activities in brooder management, but the percentage level that the technology fulfilling requirement of the activities was found satisfactory among the technology developers and extension personnel. But for the farmers it was found at an unsatisfactory level suggesting that either the technical inventory needs to be improvised in order to meet the farmer's requirement or the dissemination of these technologies to farmers should be improvised

5. References

1. Adisa BO, Akinkunmi JA. Assessing participation of women in poultry production as a sustainable livelihood Choice in Oyo State, Nigeria. International Journal of Plant, Animal and Environmental Sciences. 2012; 2:73-82.
2. Javed A, Sadaf S, Luqman M. Rural women's participation in crop and livestock production activities in Faisalabad–Pakistan. Journal of Agriculture and Social Sciences. 2006; 2(3):150-154.
3. Mishra S, Sharma S, Vasudevan P, Bhatt RK, Pandey S, Singh M *et al*. Gender participation and role of women in livestock management practices in Bundelkh and region of central India. International Journal of Rural Studies, 2008, 15(1).
4. Paul P, Meena BS, Singh A, Wani SA. Gender participation in integrated farming system in Tripura, India. Asian Journal of Dairy and Food Research. 2015; 34(1):59-62.
5. Prabakaran R. Good practices in planning and management of integrated commercial poultry production in South Asia. Food & Agriculture Organization 2003; 159:26-30.