

A study on managerial practices adopted by the commercial broiler farmers

In India broiler farming has emerged as an encouraging enterprise for rural people especially for small farmers, landless labours, educated unemployed and also for big entrepreneurs maintaining birds on a large scale (Devender Singh *et al.*, 2010). Not many studies regarding the adoption of scientific managerial practices have been made. Therefore, a field survey was undertaken to find different managerial practices followed in broiler farming.

Palladam area of Coimbatore district in Tamil Nadu is one of the major broiler pocket in India. Broiler integration is in operation in the form of contract farming (Prabakaran, 2000). However, lack of proper knowledge about managerial practices to be followed and frequent market fluctuations made this industry unpredictable. Hence, this detailed study was conducted to evaluate the broiler managerial practices and to identify suitable system of rearing for maximum profits.

The study was conducted in Palladam broiler belt in Tamil Nadu. The information was collected from 108 broiler farms which were selected at random and were utilized for the study. The farms were selected in such a way that they were in continuous operation for more than one year, with proper records and proper response of the farmer to oral enquiries. The data collected from farmers were recorded in the questionnaire which was specially designed for this purpose (Prasanna, 1991). All the data on broiler management was represented in percentages by classifying them into different categories. Mainly, those farms with the batch size below 1499, those between 1500 and 3999 and above 4000 birds were classified as small, medium and large farms respectively. And all the farms were classified either as own or contract farms.

The results of the present study are depicted in the Table 1 and 2 and following findings were made in this study;

The study revealed that majority of the farms (74.07%) were located within 50 m from the nearest human dwelling, which is contrary to the recommendation of North and Bell (1990) and Kalita (1994) who advocated a minimum distance of 100 m. All farms were well connected with good roads for transport. All the broiler farms had their orientation towards East West direction as recommended by North and Bell (1990) which helped effective

cross ventilation, prevented direct sunlight and rain into the house.

The average length of the house was $37.17 \pm 0.1.80$ m which increased with the farm size. Average width of 6.3 ± 0.11 m (Table 1) which was comparable to that recommended by North and Bell (1990). Mud flooring was popular (81.42% of the farms) than cement flooring. However, Prasanna (1991) observed many farms with cement floor in his study covering the broiler farms all over Tamil Nadu. Cement floor was seen in large farms, which eased disinfection and were rodent proof.

Tiled roof was observed in majority of the farms (67.59%) followed by thatched (25%) and asbestos roof (7.41%), which were mainly seen in medium, small and large farms respectively (Table 1). These roofing materials were also advocated by Sreenivasaiah (1987). Tile and thatch were cheaper and affordable to the small and medium farmers, compared to high cost of asbestos roof. The batch size in the broiler farms ranged from 400 to 30,600 birds. However Prasanna (1991) recorded that a batch size varied between 150 to 2500 birds. All in - all out system of rearing was practiced by 55.56 % of the farms, which was mainly observed in small and medium sized contract farms.

All the farmers reared their birds in deep litter system. This could be attributed to the economy of the operation. Almost all farms were well ventilated. Farmers were well aware of the standards of floor space and importance of ventilation. Groundnut shell was the popular litter material followed by paddy husk, spread to a thickness of about 5 cm, litter was better managed in large and own farms. This is in concurrence with the observation of Javar Hussain (1989).

The batch interval ranged from 8 to 30 days with an average of 15 days (Table 2). This is comparable to the recommendations of Narahari (1996). Batch interval was more in contract farms (17 days) than in own farms (13 days). Charcoal brooding was more popular (75% of the farms) followed by both charcoal and electrical brooding and electrical brooding alone (Table 2). Charcoal was cheaper and easily available, hence used by small and medium farmers. Chick density per brooder was about 500 chicks with an average floor space of 0.0452 m^2 in the first week. However, Deaton *et al.* (1981) stated that a floor space

Table 1. Managerial parameters adopted by commercial broiler farmers

Farm categories	Number of farms	Broiler house dimensions (m) Mean $\pm$ SE		Type of floor (%)			Type of roof (%)	
		Length	Width	Mud	Cement	Thatch	Tile	Asbestos
Own	54	37.84 $\pm$ 3.17	6.29 $\pm$ 0.10	81.48	18.52	24.07	70.37	5.56
Contract	54	36.50 $\pm$ 1.70	6.31 $\pm$ 1.17	81.48	18.52	25.93	64.81	9.26
Small	12	21.02 $\pm$ 1.46	5.01 $\pm$ 0.27	100	0	91.67	8.33	0
Medium	45	29.92 $\pm$ 1.14	6.29 $\pm$ 0.11	86.67	13.33	31.11	68.89	0
Large	51	47.07 $\pm$ 3.06	6.55 $\pm$ 0.21	74.51	25.49	5.88	78.43	15.69
Own small	7	22.50 $\pm$ 2.20	5.25 $\pm$ 0.43	100	0	85.71	14.29	0
Own medium	23	27.86 $\pm$ 1.33	6.29 $\pm$ 0.14	86.96	13.04	34.78	65.22	0
Own large	24	51.88 $\pm$ 5.88	6.60 $\pm$ 0.20	70.83	29.17	0	87.50	12.50
Contract small	5	18.96 $\pm$ 1.44	9.48 $\pm$ 0.20	100	0	100	0	0
Contract medium	22	32.07 $\pm$ 1.79	6.18 $\pm$ 0.17	86.36	13.66	27.27	72.73	0
Contract large	28	34.37 $\pm$ 2.25	6.71 $\pm$ 0.26	77.78	22.22	11.11	70.37	18.52
Over all	108	37.17 $\pm$ 1.80	6.30 $\pm$ 0.11	81.48	18.52	25.00	67.59	7.41

of 0.019 - 0.028 m² would be sufficient. About 77.78% of the farmers used commercial feed. Broiler concentrate was purchased and mixed with specified amount of maize mash to prepare feed by 17.59% of the farmers. Rest of the farmers who owned large farms mixed the feed on their own. Own feed mixing was recommended by Prasanna (1990) for optimum benefits.

Majority of the farmers (67.50 %) used bore well water, followed by open well. (28.70) A few farms purchased water for their farm activities. (3.70). As noted by Narahari (1996) automatic, trough, basin and pan and jar type waterers were used at the rate of one plastic automatic waterer per 100 birds. Majority of the farmers sanitized the water using bleaching powder. This was increasingly done as the farm size increased as well as in contract farms.

Fluorescent lamp was used as a light source in all farms. A 24 hr lighting programme was followed to get quicker body weight as

observed by Prasanna (1990) Fluorescent tubes were more durable, consumed less electricity though initial investment is high.

The results of the present study indicated that the broiler house were situated around 50 m from human dwellings and connected by good roads for transport. Farm orientation was towards east west direction. The average length and width of the house was 37.17m and 6.30 m. The floor was mud floor and tiled roof in majority of the farms. All farms were open sided. All in - all out system of rearing was practiced. Birds were reared in deep litter system. All farms were well ventilated, Groundnut shell was the popular litter material spread to a thickness of about 5 cm. The average batch interval was 15 days. Brooding was done using charcoal. Bore well water was the major water source. Plastic automatic drinkers were used.

Table 2. Managemental parameters adopted by commercial broiler farmers

Farm categories	Number	Batch interval days (Mean±SE)	Type of brooding (%)			Source of feed (%)			Source of water (%)		
			Charcoal	Electrical	Both	Company	Own	Both	Open well	Bore well	Purchased
Own	54	12.98±0.78	75.93	7.41	16.67	55.56	9.26	35.19	29.63	64.81	5.56
Contract	54	17.07±0.78	74.07	5.56	20.37	100	0	0	27.78	70.37	1.85
Small	12	13.58±1.85	83.33	0	16.67	91.67	0	8.33	83.33	16.67	0
Medium	45	13.07±0.83	71.11	8.88	20.00	75.356	6.67	17.78	35.55	62.22	2.22
Large	51	15.49±0.83	76.47	5.88	17.65	76.47	3.92	19.61	17.65	76.47	5.88
Own small	7	12.14±2.73	71.43	0	28.57	85.71	0	14.29	85.71	14.29	0
Own medium	23	13.61±1.34	60.87	13.04	26.09	52.17	13.04	34.78	30.43	65.22	4.35
Own large	24	12.12±0.92	91.67	4.17	4.40	50.00	8.33	41.66	12.50	79.17	8.33
Contract small	5	15.60±2.29	100	0	0	100	0	0	18.00	20.00	0
Contract medium	22	16.23±1.19	81.82	13.64	4.55	100	0	0	40.91	59.09	0
Contract large	28	18.0±31.14	62.96	7.41	29.63	100	0	0	22.22	74.07	3.70
Over all	108	18.03±0.58	75.00	6.48	18.52	77.78	4.63	17.59	28.70	67.50	3.70

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