Indian J. Anim. Prod. Mgmt. Vol. 28 (3-4) 214–217 (2012)

STUDIES ON HOUSING PATTERN AND MANAGEMENTAL PRACTICES ADOPTED IN BROILER PRODUCTION IN AND AROUND LIVESTOCK RESEARCH STATION, MONDIRA, KAMRUP[1]

D. SAPCOTA[2], M. SARMA AND A.K. BARMAN
Livestock Research Station, Assam Agricultural University, Mondira, Kamrup, INDIA

Received : 31.01.2012, Accepted : 04.03.2013

ABSTRACT

A study was conducted to know about the managemental practices, housing pattern and economy of samll-scale broiler farming in-and-around Livestock Research Station, AAU, Mondira under Kamrup district of Assam in half a dozen villages on 60 number of broiler farms, six from each village. It was observed that most of the broiler sheds were of temporary type with east-west direction, located by the side of dweling houses. Broiler houses were constructed with locally available materials like thatch, bamboo and wood with asbestos/GI sheet as roofing material. The available floor space and air space provided to each broiler were 1.00 to 1.25 sw. ft. and 6-9 cu.ft. respectively. Small-scale broiler units of 200-500 numbers per bacth were found to be common. Almost all farmers did not use brooders but5 used kerosene and had *kutcha* floor (not concrete). All the farmers used standard compounded broiler feeds but did not get facilities for post mortem examination of their dead birds. The market age of broilers was 5 weeks and average market weight was above 2.00 kg. The available price of live broiler was Rs. 60-70 per Kg. Average mortality rate from day-old stage to market age was 10-12%.

Key Words : Housing pattern, management practices, broilers, Assam poultry.

The popularity of broiler meat among the consumers has been increasing in North Eastern region day-by-day. This is due to easy availability, convenience in product preparation, delicacy and economy. On the other hand broiler farming has taken a shape of small scale industry in the villages of Assam due to easy availability of farm inputs, high market demand, low capital investment and short business-gestation period. However, detailed studies on housing pattern and management practices adopted in the broiler farming is scanty. Therefore, an attempt has been made to through some light on such farming system in the proposed study.

MATERIALS AND METHODS

Sixty number of broiler farms were selected randomly, six from each of ten villages located in-and-around. Livestock Research Station, AAU, Mondira under Kamrup district of Assam. The housing pattern and managemental practices of these farms were examined, physically. The dimensions of broiler sheds were measured, the materials used were studied, number of birds housed, body weight/age at marketing as well as mortality rate were recorded.

RESULTS AND DISCUSSION

The orientation of majority (80 percent) of broiler sheds were in East-West direction and 76.67 percent of the broiler houses were of *Kutcha* (temporary) type; whereas, only 3.33 percent were of permanent type (Table 1). These sheds were constructed by the side of dwelling houses. Since

1 Paper presented at the IPSACON-2011 held at Patna in Dee. 22-24, 2011

2 Corresponding Address : Prof. Deptt. of Poultry Science, CVSc, Khanapara, Guwahati-22

E-mail : debensapcota@yahoo.com

economic status of most of the farmers was weak this might have influenced to opt for low investment in the broiler shed construction. Thatch, bamboo and wooden materials were used as roofing materials by majority of farmers (75 percent); whereas, galvanized iron (GI) sheet was used by 10 percent of farmers. Since thatch is commonly available in villages with comparatively cheaper price this must have made farmers to go for it on economic reason. Further, thatched houses are generally comfortable as compared to the sheds roofed with asbests or GI sheets. The average floor space and air space provided in broiler sheds ranged from 1.00 to 1.25 sq. ft.and from 6 to 9 cu. ft. respectively.

Interestingly, the floor of almost all the sheds (96.67 percent) was *kutcha* (mud/non-concrete). Though scientifically concrete floor is always better for hygienic point of view, nevertheless, weak financial background must have compromised the framers to go for this option. All the farmers used paddy husk as litter material which must be due to the easy availability of this material. Overwhelming population of afrmers (78.33 percent) used Cobb starin of broilers in their farmings. This must be due to the fact that local dealers in these areas sell mostly Cobb chicks and very less brands of other chicks. Studying on traditional and small-scale commercial broiler production system earlier workers reported that Cobb was among the prominent strains used in Botswana, Africa.Only 3.33 percent of broiler farmers used electricity fro hatching their chicks; whereas, majority (66.67 percent) of the population used kerosene lamp for brooding. This must be eitherdue to non-availability of electricity in their villages or for unreliable power supply due to frequent load shedding. Interestingly, good numbers for farmers (30 percent) used naked incandescent bulbs for brodding by hanging from roof; whereas, traditional brooders were not used for warming the chicks. The average flock size per batch ranged from 200 to 500 numbers. All the farms used compounded broiler feeds which must be due to easy availability and conveniency. Most of the farmers (40 percent) offer feeds to their birds three times or more per day; whereas, minority of farmers (26.67 percent) fed only once in a day. Overwhelming farmers (95 percent) did not conduct post mortem examination of their dead birds which must be due to the non-availability of facilities in their localities. To address their problems private consultants or poultry experts may come forward and extent their services. Majority of thefamers (86.67 percent) received technical advises from feed/chick dealers which might be due to the non-availability of technical experts in their localities. It was interesting to note that all the dealers sell both chicks and feeds to farmers.

Most of the farmers were (80 percent) located nearer to their dealers i.e., within a distance of 5 km; whereas, only lesser numbers (6.67 percent) were located in distance places of more than 10 kms. Three fourth of the farmers maintained 15 days rearing cycle; whereas, only 3.33 percent adopted 7 days cycle. Majority of the farmers (68.33 percent) had electricity facility in their farms; whereas, only 31.67 percent did not have such facility. Almost all the farmers (96.87 percent) had hand-pump facilities as water resource whereas; only minority (3.33 percent) had wells. As digging of hand-pump is comparatively cheaper as compared to well digging the farmers must have opted the former one for economic reason.

Ironically, most of the farmers (81.67 percent) did not have water filtration system. Therefore, there is a need to educate the farmers on water hygienic so s to keep the birds in healthy conditions. The average market age of broilers was recorded to be around 5 weeks with body weight of around 2.00 kg. In a study on small-scale broiler production system in Botswana earlier workers reported the market-age and live weight at marketing of broilers to be 48.5 days and 1.79 kg, respectively. The change in the observation must be due to the various factors like strain of broilers, feed and managemental practices used. There is paucity of Indian literature working on small-scale broiler prodcution system to compare the results study.

The average market price of broilers ranged from Rs. 60 to 70 per kg live weight. Majority of

the farmers (78.33 percent) were dependent on wholesalers to sell their market-aged broilers though the wholesalers pay lesser remuneration as compared to the retailer counterpart. Though most of the farmers (96.67) buried their dead brids for disposal still there is a need to educate remaining 3.33 percent farmers to burry their birds scientifically so as to adopt proper bio-security measure. It as a happy augury that all famers maintained their farm records so as to calculate the economy of raising broilers. The average mortality rate ranged from day-old stage to market age was found to be higher (10-12 percent) as compared to standard norm. Working on small-scale broiler production system in Botswana earlier workers observed the mortality of broilers to be 9.15 percent. The higher mortality rate in this study warrants improvement on bio-security devices in the farm area.

Table 1 Frequency distribution of respondents on various parameters of housing pattern and managemental practices.

Variable	Category	No. of Respondents	Percentage
Orientation of the Shed	East-West	48	80.00
	North-South	12	20.00
Status of Shed	Temporary (Kutcha)	46	76.67
	Semi permanent	12	2.00
	Permanent	2	3.33
Roofing materials	Thatch, bamboo, wood etc.	45	75.00
	Asbestos	9	15.00
	G. Sheet	6	10.00
Type of floor	Non-condrete	58	96.67
	Concrete	2	3.33
Litter material	Paddy husk	60	100.00
	Others	0	-
Strains of broiler	Cobb	47	78.33
	Others	13	21.67
Brooding device	Electric Brooder	2	3.33
	Electric bulb hang	18	30.00
	Kerosene lamp	40	66.67
Kinds of feed	Compounded	60	100.00
	Mash	0	-
Frequency of feeding	One time	16	26.67

	Twice	20	33.33
	Thrice and more	24	40.00
Post mortem examination	Performed	3	5.00
	Not performed	57	95.00
Technical advice received	From experts	8	13.33
	From delears	52	86.66
Kinds of dealer	Supplies both chick and feed	60	100.00
	Differenct for chick and feed	0	-
Location of dealer from farmers	< 5 km	48	80.00
	6.10 Km	8	13.33
	> 10 km	4	6.67
Rearing cycle	7 days	2	3.33
	15 days	45	75.00
	30 days	3	5.00
	All in all out system	10	16.67
Electricity facility	Present	41	68.33
	Absent	19	31.67
Source of water	Hand pump	58	96.67
	Well	2	3.33
Water filtration system	Present	11	18.33
	Absent	49	81.67
Marketing arrangement	Wholesaler	47	78.33
	Retail	13	21.67
Disposal of dead birds	Burying	58	96.67
	Throwing away	2	3.33
Maintenance of farm records	Done	60	100
	Not done	0	-

CONCLUSION

Most of the broiler sheds were east-west oriented but constructed temporarily with locally available materials for economic reason. Farmers had no accessibility to technical guidance to run their farms scientifically, nor do they had post mortem facilities to examine their dead birds. Electricity and water sanitation/purification system needed improvement. It could be conlcuded that the small-scale commercial broiler farmers need more attention to improvement their basic facilitiesto produce maketable broilers as per competitive quality and price.

REFERENCES

1. Badubi, S.S. Ravindran, V. and Reid, J. 2004. A survey of small-scale broiler production systems in Botswana. Trop Anim Health Prod. 2004,, 36:823.
2. Aganga, A.A. Imphile, U.J. Maope, P., Chabanga, C.H. Motsamai, G.M. and Motsumi, L.G. 2000. Traditional poultry production and commercial broiler alternatives for small holder farmers in Botswana. LRRD Newsletter (12):2. http://www.cipav.org.co/Irrd12/4Agal124a.htm

★ ★ ★