

Healthcare and Management Practices among Pig farmers in hill zone of West Bengal

RAKESH ROY

Received 27.4.2014, Revised 12.6.20.14, Accepted 26.6.2014

ABSTRACT

Pig is one of the most efficient feed and feed byproduct converter with higher growth potential and short generation interval among the domesticated livestock species. The study was undertaken to find out the healthcare and management practices in backyard pig rearing. The present study was conducted purposively in the hill zone of West Bengal assuming large pig population. In all, 120 respondents were the total sample size for the study. The study shows that majority of the respondent had observed diarrhoea as the most prevalent disease but none had segregated infected animals from the healthy stock. Majority of the respondents treated their sick animals by themselves using indigenous traditional knowledge. Little attention was paid to deworming and vaccination against important disease by the majority of the respondents. The study also reveals that majority of the respondents had a wooden or bamboo house for their pig, used broom only for cleaning the house. Neither of them gave iron and vitamin for their piglets nor did they provide separate house, bedding material or practiced weaning. Little attention was paid to supplementary feeding and care for mortality prevention in piglets. Majority of the respondents castrated boar by an expert in the village using an indigenous method between 3-6 months, but none of the respondents were found removing the needle teeth.

Key words : Healthcare practices, Hill zone, Management practices, Pig farmer

INTRODUCTION

The challenges faced by our country in securing food as well as nutritional security to fast-growing population need an integrated approach for livestock farming. Over the last two decades, livestock sector has grown at an annual rate of 5.6 %, which is higher than 3.3 % growth in the agricultural sector (Jabir 2007). Animal husbandry activities constitute even more important part of the agro-ecological and socio-economic system in hill and mountain agro-ecological system where crop production is constrained due to small land holdings, poor soil fertility, inclement weather and shorter growing seasons. The importance of livestock in fragile ecosystems goes beyond its food production function (Birthal et al. 2002). In the year 2011, India has approximately 210.82 million cattle, 112.92 million buffaloes, 157 million goats, 74.5 million sheep and 9.4 million pigs (FAOSTAT

2013). Among the various livestock species, piggery is the most potential source of meat production and more efficient feed converter after broiler. Pig farming can provide employment opportunities to seasonally employed rural farmers and supplementary income to improve their living standards. Pig is one of the most efficient feed and feed by products converter with higher growth potential, short generation interval among the domesticated livestock species. But, the irony is that pig farming is still not acceptable among all sections in the society; it is not accepted by the Muslims as well as Hindu Brahmins and other higher section of the society. Rasali et al. (1995) revealed that traditional, religious and cultural taboos were the social constraint for pigs raised in a mixed community. The pig farming constitutes the livelihood of rural poor belonging to the lowest socio-economic strata, and they have no means to undertake scientific pig farming with improved

foundation stock, proper housing, feeding and management. Rahman et al. (2007) also reported that traditional methods were used for rearing of pig. Scientific pig rearing can be a source of income to farmers generates employment and provides a better scope to meet out the requirement in terms of animal proteins. Considering the importance of pig rearing, an extensive study on pig farmers was conducted to find out the existing healthcare and management practices in the hill zone of West Bengal.

METHODOLOGY

The study was conducted purposively in the hill zone of West Bengal on the basis of high pig population. Villages were categorized into two types- (i) nearby villages (=15 km) and (ii) remote villages (>15 km) from urban contact. Randomly 60 pig farmers each was selected from these two types of villages and thus, 120 respondents were the total sample size for the study. Data were collected through semi-structured interview schedule regarding healthcare and management practices in pig. Statistical tools such as frequency and percentage were used for analysis of data.

RESULTS AND DISCUSSION

Healthcare practices

Table 1 shows various healthcare practices adopted by the pig farmer. Majority (61.66%) of the respondents observed diarrhoea as the most prevalent disease in the study area followed by skin disease (50.83%), parasitic (25.83%), influenza (25%). However, none of them segregated the infected animals from the healthy stock. This might be due to lack of separate housing facilities or might be due to ignorance about the practice of segregation. Majority (50%) of the respondents used to treat their animals using ITK followed by veterinary medicine (25.83%) and no treatment (24.16%). Respondents from the nearby villages and remote villages had not much differences in using ITK for treating their animals. However, 31.66 percent of the respondents from the nearby villages and 20 percent of the respondent from remote villages used veterinary medicine for treating their animals whereas 16.66 percent of the respondents from the nearby villages and 31.66 percent of the respondent from remote villages did not treat their animals.

Majority (33.33%) of the respondents treated their animals by themselves using ITK followed

Table 1: Healthcare practices by the pig farmer

Healthcare Practices	Nearby (N=60)		Remote (N=60)		Pooled (N=120)	
	(f)	(%)	(f)	(%)	(f)	(%)
Prevalence of diseases*						
Diarrhoea	40	66.66	34	56.66	74	61.66
Swine fever	4	6.66	2	3.33	6	5.00
Swine pox	6	10.00	4	6.66	10	8.33
Skin disease	36	60.00	25	41.66	61	50.83
Influenza	12	20.00	18	30.00	30	25.00
Parasitic	19	31.66	12	20	31	25.83
Anaemia	6	10.00	4	6.66	10	8.33
Others	5	8.33	7	11.66	12	10.00
Segregation						
Yes	8	13.33	4	6.66	12	10.00
No	52	86.66	56	93.33	108	90.00
Treatment with						
Vet. Medicine	19	31.66	12	20.00	31	25.83
ITK	31	51.66	29	48.33	60	50.00
No treatment	10	16.66	19	31.66	29	24.16
Treatment by						
Veterinary doctors	5	8.33	8	13.33	13	10.83
Paravets	11	18.33	6	10.00	17	14.17
Local healers	15	25.00	25	41.66	37	30.83
Self	19	31.67	21	35.00	40	33.33
Deworming						
Vet. Medicine	7	11.66	2	3.33	9	7.50
ITK	9	15.00	9	15.00	18	15.00
Not done	44	73.33	49	81.66	93	77.50
Vaccination						
Yes	4	6.66	0	00	4	3.33
No	56	93.33	60	100	116	96.66

*data containing multiple responses

by local healers (30.83%), paravets (14.14%) and veterinary doctors (10.83%). There was no difference between the respondents from the nearby villages and remote villages in respect to treating their animals by themselves, but local healers were more contacted for treating their animals in remote areas. They used to treat their animals using either ITK or sometimes with veterinary medicines by themselves because it was quite tough to avail veterinary doctors at their house due to lack of transportation facilities. Deworming was not practiced by majority (77.50%) of the respondents followed by 15 percent use ITK and only 7.5 percent

use a veterinary medicine as dewormer. Kumar *et al.* (2004) also reported that they dewormed their pigs by indigenous method and but very little attention was paid on vaccination. Vaccination against important disease was adopted by only 3.33% of the respondents, and all were from nearby villages. Chucha (2004) and Jini (2008) had also reported that vaccination was not adopted by the majority of the pig farmers.

Management Practices

Table 2 shows the various aspects of existing management practices by the pig farmers, and the

Table 2: Management practices by the pig farmer

Management Practices		Nearby (n=60)		Remote (n=60)		Pooled (N=120)	
		(f)	(%)	(f)	(%)	(f)	(%)
Housing type	Concrete house	7	11.66	5	8.33	12	10.00
	Wooden/bamboo house	53	88.33	55	91.66	108	90.00
	Open space	00	00	00	00	00	00
Cleanliness of houses	Daily sweeping	00	00	00	00	00	00
	Cleaning by water	00	00	00	00	00	00
	Cleaning by broom	42	70.00	39	65.00	81	67.50
	Using phenyl	00	00	00	00	00	00
Piglets fed milk only	Upto 10 days	7	11.66	13	21.66	20	16.66
	11-15 days	5	8.33	4	6.66	9	7.50
	16-20 days	2	3.33	3	5.00	5	4.16
	21 days & above	00	0.00	00	0.00	00	0.00
Inject iron or vitamin	Yes	7	11.66	00	0.00	7	5.83
	No	53	88.33	60	100	113	94.16
Weaning	< 60 days	2	3.33	00	00	2	1.66
	60-75 days	5	8.33	2	3.33	7	5.83
	> 75 days	7	11.66	3	5.00	10	8.33
Symptoms of furrowing*	Enlargement of udder	54	90.00	53	83.33	107	89.17
	Mucous discharge	24	40.00	21	35.00	45	37.50
	Isolated itself from other	18	30.00	22	36.66	40	33.33
	Other	13	21.67	16	26.67	29	24.17
Removal of placenta	Veterinary doctor	9	6.66	1	00	10	8.33
	Paravets	2	3.33	7	11.66	9	7.50
	No intervention	49	90.00	52	82.67	102	85.00
Care for piglet	Separate house	00	00	00	00	00	00
	Bedding material	00	00	00	00	00	00
	Supplementary feeding	7	11.66	2	3.33	9	7.50
	Timely vaccination	4	6.66	0	00	4	3.33
	Care for mortality	12	20.00	18	30.00	30	25.00
Castration of male	Done	46	76.66	44	73.33	90	75.00
	Not Done	14	23.33	16	26.66	30	25.00
Castration done by	Veterinary staff	8	17.39	10	22.72	18	20.00
	Expert in the village (indigenous method)	26	56.52	19	43.18	45	50.00
	Self (indigenous method)	12	26.08	15	34.09	27	30.00
Age of castration	Below 3 months	17	36.95	15	34.09	32	35.55
	3-6 months	21	45.65	24	54.54	45	50.00
	7 months & above	8	17.39	5	11.36	13	14.44
Removal of needle teeth	Done	00	00	00	00	00	00
	Not Done	60	100	60	100	120	100

*data containing multiple responses

result shows that majority of (90%) the respondents had a wooden or bamboo house for their pig whereas only 10 percent of the respondents had a concrete house for their pig. Majority (67.5%) of the respondents used broom only for cleaning the houses whereas 70% of the respondents from nearby villages and 65% of the respondents from remote villages used broom only from cleaning the pig houses. Rest of the respondents did not clean the pig sty. Majority (16.66%) of the respondents fed their piglet with milk only up to 10 days followed by up to 11-15 days (7.5%) and 16-20 days (4.16%). Injection of iron and vitamin was adopted by only 5.83 percent of the respondents were injecting iron and vitamin for better health and growth of the piglets, and all the respondents were from nearby urban contact. Rest of the respondents did not give iron and vitamin to their pig. This finding is in line with the finding of Rahman (2007) and Jini (2008). Weaning was almost not practiced among the pig farmers in the study area. Only 8.33% of respondents practice weaning after 75 days and among them 11.66% of the respondents from nearby villages and 5.00% of the respondents from remote villages.

Majority (55.83%) of the respondents reported that enlargement of the udder is the main symptoms for identification of furrowing followed by mucous discharge (37.50%), isolated itself from other (33.33%) and others (24.17%). Removal of placenta is not a major concern for the backyard pig rearer in the region as the majority of respondents in this region did not rear pig for breeding purpose. The result shows that paravets were called for removal of placenta or no intervention for removal placenta was done. With regards to special care for piglets, none of the respondents provided separate house, bedding material and vaccination for their piglets. Supplementary feeding was given by 7.5% of the respondents. Care for mortality prevention was done by 25.00% of the respondents. Castration was adopted by majority (75%) of the respondent. Chucha (2004) had also reported that 65.34 percent of the respondents had adopted castration. Among those who had adopted castration of the boar, majority (50%) castrated their animals by an expert in the village using indigenous method followed by self-using indigenous method (30%) and veterinary staff (20%). Again, majority (50%) of the respondents castrated their animals in between 3-6 months of age followed by below 3 months

(35.55%) and 7 months & above (14.44%). The study also revealed that none of the respondents were removing the needle teeth. Jini (2008) had also reported that none of the pig farmers in Arunachal Pradesh had adopted removal of needle teeth.

CONCLUSION

The study shows that there was not much difference between the farmers of near and remote from urban contact. Previous studies as well as this study has revealed that non the adoption of commercial pig production practices might be due to ignorance on scientific healthcare and management practices. Considering the huge demand for pork, suitable policy for the pig farmers in the hill zone needs to be taken by the Government which can enhance the rural economy of this region. There is also an urgent need for extension intervention to impart knowledge regarding scientific pig rearing practices, which will further boost them to adopt pig farming on a commercial basis to generate more income from it.

REFERENCES

- Birthal PS (2002). Technological Change in India's Livestock Sub-sector: Evidence and Issues, In: Technology Options for Sustainable Livestock Production in India (P S Birthal and P Parthasarathy Rao, eds). National Centre for Agricultural Economics and Policy Research, New Delhi, International Crops Research Institute for the Semi-Arid Tropics, Patancheru, Andhra Pradesh, and International Livestock Research Institute, Addis Ababa. http://www.icrisat.org/Text/pubs/digital_pubs/J144_2002.pdf
- Chucha M (2004). A study on system of household rearing of pigs and their marketing in Kohima district of Nagaland. M.V.Sc Thesis, Assam Agricultural University, Guwahati, India.
- FAOSTAT (2013). Live animals, Production. Food and Agriculture of United Nation (<http://faostat.fao.org/site/573/DesktopDefault.aspx?PageID=573#anchor>) Accessed on 22.8.2013
- Haldar A, Dutta B, Duttagupta R (1996). Constraints in piggery a study in the rural area of North 24 Parganas district in West Bengal. *Indian Journal of Animal Production and Management*. 12(3/4):184-188.
- Ali J (2007). Livestock sector development and implications for rural poverty alleviation in India. *Livestock Research for Rural Development* 19(2). <http://www.lrrd.org/lrrd19/2/ali19027.htm>

- Jini D (2008). Knowledge and adoption level of scientific pig rearing practices among farmers in Arunachal Pradesh. M.V.Sc. Thesis submitted to Indian Veterinary Research Institute, Izatnagar (U.P) India
- Kumar R, Pal PP, Prakash N, Naskar S (2004). Performance assessment of improved breed of pig under local condition. *Indian Journal of Animal Sciences*. 74(7):795-796
- Rahman S (2007). Adoption of improved technologies by the pig farmers of Aizawl district of Mizoram, India. *Livestock Research for Rural Development* 19(1). <http://www.cipav.org.co/lrrd/lrrd19/1/rahm19005.htm>. Accessed on 02.10.2012
- Rahman S, Kalita G, Sharma K (2007). A study on pig rearing practices of pig farmer of Mizoram. *Indian Journal of Social Research*. 47(1):35-40
- Rasali DP, Gurung HB, Gurung, DB and Amatya RK (1995). Comparative performance of improved pigs under improved and traditional management systems in a village of western mid hills of Nepal. Working Paper Lumle Regional Agricultural Research Centre, (95/69):31