

MARKETING AND DISEASE CONTROL MEASURES ADOPTED BY POULTRY FARMERS IN HARYANA STATE

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Received: 02.09.2023; Accepted: 15.11.2023

SUMMARY

Poultry farming has transformed itself into large scale commercial enterprise in India. Haryana state is also engaged in achieving the target of white revolution through increased milk and egg production. With such developments new problems are developing. Disease surveillance and monitoring facilities including bio-security and marketing infrastructure are some of such problem. An on the spot study was made to study the different measures adopted by farmers to control the diseases. The behaviour of poultry farmers with regard to flock size, feed purchase and disposal of eggs and birds was also studied although feed and water testing facilities are available free of cost to the farmers of Haryana yet only 25- 30% of the farmers avail this facility. From this study it can be inferred that more efforts are needed to increase this frequency by extension worker. All the layer farmers practiced debeaking and were well versed with this practice. The farmers informed that they touched the beak of chicks with rod. Hot blade of debeaker during first week of age and actual debeaking was practiced later on. The second debeaking was done at different ages. About 44% of the farmers debeak their birds at 3 month age and about 12% adopted this practice at 2 month age. Most of the broiler farmers did not vaccinate their flocks because birds are disposed off early and day old vaccination is done by hatcheries. In spite of this fact 24% farmers vaccinated their flocks for New Castle F-1 vaccine again at day old (7%) and one week age (17%). The layer farmers were well versed with vaccination schedule and followed the same meticulously. Disinfection of sheds at the time of replacement of flock. Rat menace was a big problem of farmers. Coccidiosis, CRD and aflatoxicosis were the most prevalent diseases in Haryana. Supply of good quality feed at cheap rates, availability of loans and sale of broilers by numbers rather than weight were other problems of the farmers.

With overall development of poultry industry problems of disease surveillance and monitoring facilities including bio-security and marketing infrastructure are developing. An on the spot study was made to study the measures adopted to control these problems. The behaviour poultry farmers with regard to flock size, feed purchase and disposal of egg and birds were also studied.

Keywords: Control, Disease, Farmers, Haryana, Marketing Systems, Measures, Poultry

How to cite: Dahiya, N.S. and Shinde, K.P. (2024). Marketing and disease control measures adopted by poultry farmers in Haryana state. *Haryana Vet.* 63(1): 105-108.

Poultry enterprise has a significant place in India as eggs and poultry are very crucial and are a rich source of protein and different nutrients required for human being. Gueye (2005) reported that the poultry farming is an important source of income and employment for millions of farmers. According to Chatterjee and Rajkumar (2015) poultry is one of the fastest growing segments of the agricultural sector in India with around eight percent growth rate per annum. Ali (2015) reported that over the past three to four decades, poultry has made great developments, especially in the private sector, which has caused India to become more self-sufficient in terms of excellence breeding, modern poultry products, access to medicines and vaccines and technologies also as the skilled workers are trained. Ithika (2013) stated the primary business of poultry farming has given rise to a number of supporting and allied industries like poultry processing, compounded feed, equipments, machinery, pharmaceuticals. Meat of poultry birds is the most widely accepted meat in India. Many families, especially in urban areas, have initiated to accept eggs as a regular part of their vegetarian diet as source of protein (Bhagerwal, 1989).

Poultry business is a powerful tool for aggravation of rural poverty, suppression of malnutrition and formation of gainful employment in rural farming community (Sharma and Chatterjee, 2009; Rajkumar *et al.*, 2010). The poultry production in Haryana state remains to display remarkable growth in spite of several challenges comes across over the years. With increasing demand for egg and meat, the poultry production in state foretells further expansion and industrialization. Farm poultry is dominant in Haryana. The main hubs of broiler production are Jind, Panipat, Hisar, Fatehabad, Sirsa, Karnal, Kaithal and Yamunanagar. Considering the importance of poultry farming in Haryana state the study entitled "Marketing and Disease Control Measures Adopted by Poultry Farmers in Haryana State" was conducted.

MATERIALS AND METHODS

The study was conducted in three districts (Sirsa, Jind and Sonapat) of Haryana State. A structural schedule was prepared and pretested for its validity and applicability by interviewing the poultry farmers from each district. Minor changes found necessary as a result of pretesting were taken into consideration and a questionnaire was given

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to respondents. Direct information was obtained by personal interview with the farmers. A total of 115 poultry farms (30 in Sirsa, 60 in Jind and 25 in Sonipat) were visited. Out of it 81 were broiler farms and 34 layer farms from the data so collected frequencies were obtained for each message and percentages were calculated to draw inferences. Chi-square Test of significance was applied to determine significant difference between different variables.

RESULTS AND DISCUSSION

To prevent nutritional diseases it is desirable to test the feed and water for its suitability before it is given to the birds. Table 1 presents the frequency of farmers who got their feed and water tested.

Although feed and water testing facilities are available free of cost to the farmers of Haryana yet only 25-30% of the farmers avail themselves of this facility. From this study it can be inferred that more efforts are needed to increase this frequency by extension worker.

Debeaking is a necessary stress and this has to be done for prevention of cannibalism and feather picking. The study revealed that no debeaking was practiced in broiler chicks. All the layer farmers practiced debeaking and were well versed with this practice. The farmers informed that they touched the beak of chicks with rod. Hot blade of debeaker during first week of age and actual debeaking was practiced later on. The second debeaking was done at different ages. About 44% of the farmers debeak their birds at 3 month age and about 12% adopted this practice at 2 month age.

Vaccination schedule followed by farmers has been presented in Table 2. Most of the broiler farmers did not vaccinate their flocks because birds are disposed off early and day old vaccination is done by hatcheries. In spite of this fact, 24% farmers vaccinated their flocks for New Castle F-1 vaccine again at day old (7%) and one week age (17%). The layer farmers were well versed with vaccination schedule and followed the same meticulously. In spite of the fact that layer chicks are protected against Ranikhet and Marek's by hatcheries, 7% of the farmers' vaccinated for Ranikhet at day old and 17% at one week age again.

Disinfection of premises after flock replacement was also practiced by the farmers; Out of 115 total farmers studied 102 replaced the old litter whenever they replaced the flock. Significant variation was observed in adoption of practice of white washing the sheds after flock replacement. Ninety three percent farmers of Sirsa district, 84 percent farmers of Sonipat district and 3 percent of Jind district adopted this practice. All the farmers of Jind district

Table 1. Frequency of poultry farmers who got their feed and water tested (within parenthesis are percentages)

Districts	No. of farmers studied	No. of farmers who got their feed tested*	No. of farmers who got water tested**
Sirsa	30	12 (40)	4 (13)
Jind	60	11 (18)	16 (27)
Sonipat	25	11 (44)	10 (40)
Total	115	34 (30)	30 (26)

* $\chi^2 = 11.31$ (non significant) ** $\chi^2 = 19.98$ (significant $P < 0.01$)

were broiler farmers. Ten percent of farmers of Jind district, 16 percent of Sirsa district and 44 per cent from Sonipat district used the method of burning of premises with a blow lamp. More than 90 percent farmers of Sonipat and Sirsa district and 78 percent of Jind districts used a disinfectant spray for disinfection of premises. This showed that farmers were much alert about disinfection of premises. The Haryana Govt. and the Haryana Agri. University has set up disease diagnostic laboratories almost at each district headquarters of the State. In addition, Vety. Asst. Surgeons are available to help the farms and to dispatch the material for post mortem examination to laboratories; In spite of these facilities it was observed that only 55% of the farmers do not use these facilities.

Out of total of 115 farms studied only 17 were free from rats, it could be inferred that rats in the poultry houses may be considered a big problem.

The farmers were questioned regarding existence of various diseases on their farms. It was reported that coccidiosis, CRD and aflatoxicosis were most prevalent. Other diseases like RD, M.D., Gamboro, *E. coli* and typhoid were not considered major problem by farmers. These different diseases can have a significant economic influence on individual farm and on the poultry industry as a whole (Wierup, 2012).

Marketing was reported to be the biggest problem (first being availability of cheap and quality feed) of the poultry farmers. The farmers reported that there was no parity between feed prices with that of eggs and broilers and the prices of these commodities were mainly affected by season. A similar observation has been reported by Pandey and Aggarwal, 1991.

In addition to fluctuation of prices the present study also took note of availability of loans, mode of transportation of chicks, frequency of purchase of chicks, marketing outlets and related matters.

Out of 115 farmers studied, 54 took loans and rest made their own investment. The use of hatchery vehicle/

Table 2. Vaccination schedule followed in three districts studied

Sr. No.	Vaccination Schedule	Sirsa (n=10)		Sonipat (n=12)		Jind (n=59)		Total (n=81)	
		No.	%	No.	%	No.	%	No.	%
A.	Broiler farm								
1.	No vaccination	7	70.00	6	50.00	48	81.35	61	75.30
2.	Day old vaccination	1	10.00	1	8.33	4	6.77	6	7.40
3.	F1 at one week age	2	20.00	5	41.66	7	11.86	14	17.28
B.	Layer farm (n=34)								
1.	No vaccination	-	-	-	-	-	-	-	-
2.	Day old MD vaccination	20	100.00	13	100.00	-	-	33	100.00
3.	Day old F1 (RD)	20	100.00	13	100.00	-	-	33	100.00
4.	Gumboro (14-19 days)	14	70.00	10	76.92	-	-	24	72.72
5.	MD & IB (21-28 days)	16	80.00	8	61.53	-	-	24	72.72
6.	F1 repeated (6 weeks)	18	90.00	10	76.92	-	-	28	84.84
7.	Fowl Pox, R2B (6-8 weeks)	20	100.00	13	100.00	-	-	33	100.00
8.	Fowl Pox, R2B (8-12 weeks)	20	100.00	13	100.00	-	-	33	100.00

*There was only one poultry farm of 10,000 layers strength at Jind where all the 8 Vaccination schedules were practiced.

Table 3. Table showing frequency of various problems encountered by the farmers

Problems of farmers studied	Sirsa (n=30)		Jind (n=60)		Sonipat (n=25)		Total (n=115)	
	No. of farmers encountering problem	% of total studied	No. of farmers encountering problem	% of total studied	No. of farmers encountering problem	% of total studied	No. of farmers encountering problem	% of total studied
High cost of inputs	19	63.33	48	80.00	16	64.00	83	72.17
Marketing	15	50.00	41	68.33	14	56.00	70	60.86
Difficulty in getting loans	7	23.33	24	40.00	6	24.00	37	32.17
Problem in getting subsidy	12	40.00	35	58.33	8	32.00	55	47.82
Low rate of poultry products	9	30.00	18	30.00	5	20.00	32	27.82
Sale of bird by number vs. weight	2	6.66	37	61.66	2	8.00	41	35.65
Non-availability of chicks	1	3.33	2	3.33	1	8.00	4	3.47
Non-availability of quality feed	2	6.66	16	26.66	2	8.00	20	17.39
Non-availability of disease investigation facilities	2	6.66	5	8.33	1	4.00	8	6.95
Lack of storage facilities	11	36.66	32	53.33	10	40.00	53	46.08

own vehicle were main modes of transport of chicks. The layer farmers either purchased the chicks once in 1.5 years (60%); or once in a year (20-30%) About 10-20 percent purchased chicks three times in a year. About 36% of broiler farmers purchased the chicks once a month whereas 64% obtained chicks at bimonthly interval this was done because they were aware and scared about the continuity of coccidiosis at the farms.

The farmers were given a chance to give their problems in running their farms. The results of survey has been tabulated in table 3. The biggest problem reported by the farmers was high cost of inputs especially feed. Marketing was second biggest problem, difficulty in getting loans, problems in getting subsidy low rate of poultry products, rating of broiler by number versus weight and lack of storage facilities were other problems of the farmers.

The study succeeded in highlighting the present status of poultry farmers in Haryana state in particular and India in general.

CONCLUSION

The study will provide and vision of marketing systems and disease control measures adopted by Poultry Farmers in the state. The study will also benefit in operative advancement of poultry production and will help to produce facts about the practices related to poultry production followed under different systems mainly related with the debeaking, vaccination, disinfection and marketing. By practicing scientific technique of poultry production the farmers can able to earn and make the poultry business cost-effective. The study highlighted that, farmers have less knowledge about vaccination schedule. Hence, there is a need to create awareness on importance of vaccination and provision for timely vaccination by

concerned department. The practices even though presumed very important in terms of income and profit of poultry firm were poorly adopted so there is needs to conduct the more extension programmes for farmers as information transmitted orally among poultry farmers not enough to increase adoption level of poultry technologies. Also it is concluded that the main constraints faced by poultry farmers in receiving credit. If credit is not available as per the necessity in the time of need, it creates difficulty for getting the optimum poultry profit. A prolonged procedure for receiving credit is a foremost trouble for the poultry growers making direct influence on poultry production.

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Editors/Editorial Board Members are highly thankful to all the distinguished referees who helped us in the evaluation of articles. We request them to continue to extend their co-operation and be prompt in future to give their valuable comments on the articles for timely publication of the journal.