PERSONAL PROFILE AND CONSTRAINTS PERCEIVED BY THE BENEFICIARIES OF BACKYARD POULTRY FARMING IN JAIPUR RAJASTHAN

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ABSTRACT

Backyard poultry farming is an important source of livelihood and a major occupation and symbol of economic status specially in Rajasthan. The present study was undertaken to study personal profile and identify constraints perceived by the beneficiaries of backyard poultry farming. The study was conducted in SKNAU, Jobner-Jaipur, Rajasthan. Out of a total 120 beneficiaries from purposively selected Jaipur district, 80 beneficiaries were selected randomly for the study purpose. Pre structured, pretested schedule and interview method was used for collecting data from the beneficiaries. Purposive and random sampling technique was applied for the selection of beneficiaries for this study. The data were collected through interview schedule. The study concluded that majority of the beneficiaries were middle aged, belonged to OBC category, 18.25 per cent were graduate, 37.50 per cent belonged to nuclear family system, majority of them were marginal farmer and 73.75 per cent families belonged to medium income group. The most important constraints face by the beneficiaries Lack of knowledge & skill about temperature regulation, Shortage of floor space, Difficulty in getting loans, High fluctuations in selling price and so on.

Key words: Backyard poultry farming, personal profile, constraints, mean per cent score, rank

Introduction

Backyard poultry is an important source of supplementary diet and nutrition security for a large number of poor households across the country. In the present scenario rural poultry farming is contributing nearly 21 per cent to the national egg production. The demand of eggs and meat of rural areas is fulfilled by rearing of backyard poultry**.** Village chickens provide cheap, readily harvestable protein-enriched white meat and eggs with high quality, digestible protein for immediate home consumption and sale for income generation. There is need to understand the perceptions of the farmers on the functions of backyard poultry and the value of their products under the existing production systems in order to improve backyard poultry productivity and sustainability in rural areas. Backyard poultry rearing also finds an important role to fulfil the need of stress free and harmful residues free birds. In spite of the increased productivity of the industry in recent years, the industry has been faced with challenges which results in the loss of major market. Hence, the present study was carried out to identify the constraints in backyard poultry farming in Rajasthan and to know personal profile and overcome the hurdles faced by poultry farmers.

In recent years there has been increasing recognition among the development community about the role that backyard poultry production can play in sustaining and enhancing poor people's livelihoods. There is also growing evidence which demonstrates the role of rural family poultry in enhancing food and nutritional security of the poorest, reducing their livelihood vulnerability and insecurity and promoting gender equity (Ahuja and Sen, 2007). Backyard poultry is an important source of additional income generation for the rural household, especially among poor strata of the population. Pathak and Nath (2013) stated that livestock and poultry rearing is an imperative factor for improving the nutritional security of rural poor in India. It has also been an effective tool for poverty alleviation in the rural areas. The supplemental earning through this increases income of the farmers; thereby, enhances rural livelihoods. Most of the backyard poultry production comprises rearing of indigenous birds with poor production performances. However, the indigenous birds are capable of producing only 40 to 50 eggs per year and meat production is also very less. It is necessary to introduce improved varieties of chicken to increase the production, which can promise better production of meat and eggs.

Poultry is found to have greater outreach to poor than other livestock (Nandi *et al.,* 2007) as keeping a few poultry that scavenge around the homestead for food is more affordable than keeping cattle or small ruminants. Village poultry are often considered as the starter capital to move out of poverty as these provide high value food and a small cash income (Ahuja *et al*., 2008; Aklilu, 2008). Apart from food and cash income, poultry products in rural India contribute to social bonding as poultry meat and eggs are used to entertain guests and are also given as gifts. Rural poultry production is being recognized as important component of socio economic improvement among the weaker section of society; especially landless labour, small and marginal farm women. Rural poultry generates self-employment, provides supplementary income with protein rich food at relatively low cost.

Materials and Methods

The present investigation was conducted in Sri Karan Narendra Agriculture University, Jobner-Jaipur, Rajasthan. A project under RKVY on backyard poultry is being operated since 2014. To study the personal profile and identify constraints perceived by the beneficiaries of backyard poultry farming. Jaipur district was purposively selected for the study purpose because maximum number *i.e.*120 beneficiaries were benefited from this district. The selected beneficiaries belonged to six tehsils of Jaipur districts namely- Phulera,

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Chomu, Renwal, Amber, Dudu, & Phagi. All the tehsils were selected for the study purpose. Out of a total 120 beneficiaries from Jaipur district, 80 beneficiaries were selected randomly for the study purpose. The data were collected with the help of personal interview technique through interview schedule. The collected data were tabulated and analysed by using statistical tools *i.e.* mean present score, mean, standard deviation, per cent and rank.

The constraints could be various types and might have been perceived by the farmers on different aspects on priority basis. To determine the perceived constraints, major aspects were identified for this investigation. The data about the constraints perceived by the farmers were weighed on a three point continuum *viz*. most important, important and least important with their weightage as 3, 2 and 1, respectively. The mean per cent score about the six major aspects was computed and their ranks were assigned accordingly.

$$MPS = \frac{\text{Total scores obtained by respondents}}{\text{Maximum possible obtainable scores}} \times 100$$

$$SD = \sqrt{\frac{\Sigma X_i^2}{n} - \left(\frac{\Sigma X_i}{n}\right)^2}$$

Where,

SD = Standard Deviation

ΣX_i^2= Sum of squares of the observations

ΣX_i = Sum of values of the observations

n = Number of respondents

Frequency and Percentage - Simple comparisons were made on the basis of frequency and percentage.

Results and Discussion

It is evident from Table 1 that majority (57.50 per cent) of beneficiaries were middle aged (37 to 53 years), followed by 23.75 per cent and 18.75 per cent in old and young age groups, respectively. Table shows that most of the beneficiaries belonged to OBC category (35.00 per cent), followed by schedule cast (23.75 per cent), general category (22.50 per cent), schedule tribe (15.00 per cent) and only 3.75 per cent beneficiaries were from specially backward class category.

The data incorporated in Table 1 regarding education clearly shows that out of total 80 beneficiaries 18.25 per cent were graduate, followed by Middle (17.50 per cent), Primary (16.25 per cent), Senior Secondary (15.00 per cent), Above Graduation and Graduation (13.75 per cent) and only 05.00 per cent were beneficiaries Illiterate. Regarding occupation the table shows that were doing Business 28.75 per cent, followed by Labour (27.50 per cent), Services (21.25 per cent), Ag./Animal Husbandry (17.50 per cent) and only 06.25 beneficiaries were doing Caste occupation. The table also indicate that 37.50 per cent of the beneficiaries belonged to nuclear family system and remaining 62.50 per cent belonged to joint family system. The data shows that 21.25 per cent of the respondents were from small families, 65.00 per cent were from medium families and 13.75 per cent belonged to large families. Table 1 also explain that out of 80 respondents 60.00 per cent were marginal farmer, 15.00 per cent each were small and medium farmers and 10.00 per cent were large farmers.

Table 1: Personal profile of backyard poultry beneficiaries

S. No.	Personal profile	Frequency	Per cent
1.	**Age**		
1	Young age (<37 years)	15	18.75
2	Middle age (from 37 to 53 years)	46	57.50
3	Old age (>53 years)	19	23.75
2.	**Caste**		
1	Scheduled Caste	19	23.75
2	Scheduled Tribe	12	15.00
3	Special Backward Caste	03	03.75
4	Other Backward Caste	28	35.00
5	General Caste	18	22.50
3.	**Education**		
1	Illiterate	04	05.00
2	Primary	13	16.25
3	Middle	14	17.50
4	Secondary	11	13.75
5	Senior Secondary	12	15.00
6	Graduation	15	18.25
7	Above Graduation	11	13.75
4.	Occupation		
1	**Labour**	22	27.50
2	Caste occupation	05	06.25
3	Ag. / Animal Husbandry	14	17.50
4	Business	15	28.75
5	Services	17	21.25
5.	**Type of family**		
1	Nuclear	30	37.50
2	Joint	50	62.50
6.	**Family size**		
1	Small (up to 3 members)	17	21.25
2	Medium (from 4 to 10 members)	52	65.00
3	Large (> 10 members)	11	13.75
7.	**Land holding (in ha)**		
1	Marginal farmers (up to 1.00 ha.)	48	60.00
2	Small farmers (from 1.01 to 2.00 ha)	12	15.00
3	Medium farmers (from 2.01 to 4.00 ha.)	12	15.00
4	Large farmers (more than 4.01 ha.)	08	10.00
8.	**Social participation**		
1	No member of any organization	33	41.25
2	Member of one organization	13	16.25
3	Member of more than one organization	16	20.00
4	Member of committee	09	11.25
5	Leader of organization	05	06.25
6	Public leader	04	05.00
9.	**Annual income**		
1	Low (<Rs. 40188)	03	03.75
2	Medium (from Rs. 40188 to 148889)	59	73.75
3	High (>Rs. 148889)	18	22.50
10.	**Number of poultry birds**		
1	Small farm (<50 birds)	34	42.50
2	Medium farm (from 50 to 420 birds)	36	45.00
3	Large farm (>420 birds)	10	12.50
11.	**Poultry farming experience**		
1	Low (< 3 years)	13	16.25
2	Medium (from 3 to 9 years)	49	61.25
3	High (>9years)	18	22.50

The Table emphasises that regarding social participation 41.25 per cent were no member of any organization, 16.25 per cent were member of one organization, 20.00 per cent were members more than one organisation, 11.25 per cent were member of committee, 06.25 per cent were leader of organization and only 05.00 per cent were public leader. Regarding annual income 73.75 per cent beneficiaries belonged to medium income group, followed high income group (22.50 per cent) and only 03.75 per cent were from low income group. It can be observed from Table that 42.50 per cent beneficiaries were having small poultry farms, whereas 45.00 per cent and 12.50 per cent were having medium and large poultry farms, respectively. Regarding poultry farming experience the data shows that

61.25 per cent of the beneficiaries had medium experience, while 16.25 per cent had low and 22.50 per cent had high experience in poultry farming.

The above finding regarding personal profile of the backyard poultry farmers are in accordance with the finding obtained by Ahuja *et al.* (2008), Gasura *et al.* (2013) and Thorat and Vahora (2015).

(A) Technological constraints

The data in Table 2 explain that "Lack of knowledge and skill about preparing balance ration" was realized as most important constraint by poultry farmers with MPS 85.83 and was accorded first rank,followed by "Lack of knowledge in preparing brooder house", "Lack of knowledge and skill about feed requirement at different age groups of birds", and "Lack of knowledge regarding improved breeds of backyard poultry" with MPS 79.58, MPS 70.00 and MPS 66.67, respectively, "Lack of knowledge and skill about diseases of hatchery" (56.25 MPS), "Lack of knowledge and skill about management of poultry medicines" (55.83 MPS), "Lack of knowledge and skill about vaccination/ vaccination schedule" (53.33 MPS), and the lowest rank was awarded to "Lack of knowledge and skill about temperature regulation" (44.17 MPS). These findings are in agreement with the findings obtained by Vetrivel (2012) and Sridharan and Saravanan (2013).

(B) Infrastructural constraints

The data in Table 2 shows that "Shortage of floor space" was realized as most important constraint by poultry farmers with 70.83 MPS and was accorded first rank, followed by "Poor housing facilities", "High rate of power charge", "Lack of rodent and predator proof houses" and "Non availability of scientific housing structures" with 68.75 MPS, 51.67 MPS, 50.83 MPS and 48.33 MPS, respectively The lowest rank was accorded to "Shortage of feeding and watering space" with 41.25 MPS. These findings are in accorded with those obtained by Gasura *et al*. (2013) and Rahman (2017).

(C) Economic constraints

Table 2 concludes that "Difficulty in getting loans" was realized as most important constraint by poultry farmers with 86.25 MPS and was accorded first rank, followed by "High rate of interest on loans", "High cost of transportation", "High cost of chicks", "Poor financial condition of farmers", "High mortality", "High cost of feeds" and "Wastage of feed by birds" with 85.83 MPS, 83.75 MPS, 83.33 MPS, 65.00 MPS, 57.92 MPS, 46.67 MPS and 42.50 MPS, respectively The lowest rank was accorded to "Wastage of feed by birds" with 42.50 MPS. These findings are in agreement with those of Sharma *et al.* (2018) and Esakkimuthu and Kameswari (2019).

(D) Marketing constraints

The data present in Table 2 revealed that "High fluctuations in selling price" was realized as most important constraint by poultry farmers with 81.25 MPS and was accorded first rank,followed by "Lack of purchase of eggs and meat by Govt. agencies", "Non-remunerative selling prices" and "Lack of poultry cooperative societies" with 77.92 MPS, 57.08 MPS and 55.83 MPS, respectively. "Shortage of local market" (53.75 MPS), "High demand restricted only to few months" (52.50 MPS), "Problem in marketing of poultry birds and eggs", (51.30 MPS)

Table 2: Constraints in Backyard poultry farming perceived by the beneficiaries

S. No.	Constraints	MPS	Rank
A.	**Technological constraints**		
1	Lack of knowledge regarding improved breeds of backyard poultry	66.67	IV
2	Lack of knowledge and skill about preparing brooder house	79.58	II
3	Lack of knowledge and skill about preparing balanced ration	85.83	I
4	Lack of knowledge and skill about diseases of hatchery	56.25	V
5	Lack of knowledge and skill about management of poultry medicines	55.83	VI
6	Lack of knowledge and skill about vaccination/ vaccination schedule	53.33	VII
7	Lack of knowledge and skill about temperature regulation	44.17	VIII
8	Lack of knowledge and skill about feed requirement at different age groups of birds	70.00	III
B.	**Infrastructural constraints**		
1	Shortage of floor space	70.83	I
2	Poor housing facilities	68.75	II
3	Non availability of scientific housing structures	48.33	V
4	Lack of rodent and predator proof houses	50.83	IV
5	Shortage of feeding and watering space	41.25	VIII
6	High rate of power charge	51.67	III
7	Difficulty in getting electricity connection	45.83	VI
8	Unscheduled and long hours power cuts	43.33	VII
C.	**Economic constraints**		
1	High cost of feeds	46.67	VII
2	Poor financial condition of farmers	65.00	V
3	High cost of chicks	83.33	IV
4	Difficulty in getting loans	86.25	I
5	High cost of transportation	83.75	III
6	High rate of interest on loans	85.83	II
7	Wastage of feed by birds	42.50	VIII
8	High mortality	57.92	VI
D.	**Marketing constraints**		
1	High fluctuations in selling price	81.25	I
2	High demand restricted only to few months	52.50	VI
3	Non-remunerative selling prices	57.08	III
4	Shortage of local market	53.75	V
5	High involvement of middlemen	51.20	VIII
6	Problem in marketing of poultry birds andeggs	51.30	VII
7	Lack of poultry cooperative societies	55.83	IV
8	Lack of purchase of egg and meat by Govt. Agencies	77.92	II
E.	**Social constraints**		
1	Lack of awareness among people about balanced diet	77.80	I
2	Vegetarian food habits of the people	50.00	III
3	Social restriction on poultry farming	51.25	II
F.	**Input constraints**		
1	Poor quality of chicks	47.08	VIII
2	Scarcity and poor quality of feeds	48.33	VII
3	Paucity of water	45.83	IX
4	Non-availability of chicks in time	50.42	V
5	Non-availability of vaccines and other medicines in time	53.33	IV
6	High mortality of chicks	49.17	VI
7	Non-availability of chicks from local areas	56.29	II
8	Low egg production of layers	62.92	I
9	Small size and low weight of eggs	56.21	III

and "High involvement of middlemen" (51.20 MPS), respectively. The lowest rank was awarded to "High involvement of middlemen**"** (51.20 MPS). These findings are in accorded with the findings obtained by Thorat *et al.* (2015) and Gunaseelan and Singh (2018).

(E) Social constraints

Table 2 also explain that "Lack of awareness among people about balanced diet" was realized as most important constraint by poultry farmers with 77.80 MPS and was assigned first rank,followed by "Social restriction on poultry farming" and "Vegetarian food habits of the people", with 51.25 and 50.00 MPS, respectively. The lowest rank was awarded to the constraint "Vegetarian food habits of the people" (50.00 MPS). These findings are in agreement with those of Rahman (2017) and Sharma (2018).

(F) Input constraints

The data presented in Table 2 shows that "Low egg production of layers" was realized as most important constraints by poultry farmers with 62.92 MPS and was accorded first rank, followed by "Non-availability of chicks from local areas", "Small size and low weight of eggs" and "Non-availability of vaccines and other medicines in time" with MPS 56.29, 56.21 and 53.33 MPS, respectively. The lowest rank was accorded to "Paucity of water**"** with 45.83 MPS.These findings are in agreement with those of Umar *et al*. (2011) and Vetrivel *et al*. (2012).

A critical examination of data presented in Table 3 reveal that Economic constraints have possessed the first position as perceived by 68.90 MPS poultry farmers. The second position was occupied by Technological constraints (63.95 MPS), followed by Social constraints (59.44 MPS), Marketing constraints (57.55 MPS), Infrastructural constraints (52.60 MPS) and Input related constraints (52.17 MPS). These findings are in agreement with those of Gunaseelan and Singh (2018) and Esakkimuthu and Kameswari (2019).

Conclusion

From finding of the study it is concluded that majority (57.50 per cent) of beneficiaries were middle aged (37 to 53 years); 35.00 per cent belonged to OBC category; 18.25 per cent were graduate; 37.50 per cent belonged to nuclear family system, 60.00 per cent were marginal farmer; 20.00 per cent were members more than one organisation; regarding annual income 73.75 per centbeneficiaries belonged to medium income group; 42.50 per cent beneficiaries were having small poultry farms (less than 50 birds) and 61.25 per cent of the beneficiaries having medium experience (3 to 9 years) in poultry farming.

Table 3: Overall relative position of various constraints in backyard poultry framing:

S. No.	Constraints	MPS	Rank
1.	Technological constraints	63.95	II
2.	Infrastructural constraints	52.60	V
3.	Economic constraints	68.90	I
4.	Marketing constraints	57.55	IV
5.	Social constraints	59.44	III
6.	Input related constraints	52.17	VI

Regarding constraints perceived by the beneficiaries "Lack of knowledge and skill about preparing balance ration" (63.95 MPS) was the most important technological constraints; "Shortage of floor space" (52.60 MPS) was the most important infrastructural constraint; "Difficulty in getting loans" (68.90 MPS) was the most important economic constraint; "High fluctuations in selling price" (57.55 MPS) was the most important marketing constraint; "Lack of awareness among people about balanced diet" (59.44 MPS) was the most important social constraint; "Low egg production of layers" (52.17 MPS) was the most important input constraint. Among overall constraintsperceived by the beneficiaries Economic constraint (68.50 MPS) was at the first rank.

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