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Constraints perceived by farmers in backyard poultry rearing in coastal region of Andhra Pradesh

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Abstract

Backyard poultry farming has played an important role in meeting the domestic as well as socio-cultural needs of the rural people since time immemorial in India which has lost its significance due to commercialisation of poultry industry. However, with the increasing awareness among consumers about the backyard poultry products, backyard poultry farming is gaining importance. In this regard, a survey has been done in three mandals of Krishna district of Andhra Pradesh to assess the constraints being faced by the rural farmers in taking-up as well as in continuing the backyard poultry rearing in a sustainable way. 30 farmers from each mandal were selected randomly, thus constituting a sample of 90 farmers among whom 58.80 percent were maintaining backyard poultry, whereas 26.66 percent were interested, but not rearing and 14.44 percent were not interested at all in backyard poultry rearing. Constraints faced by the farmers rearing backyard poultry were low hatchability of eggs (52.83%) followed by high incidence of diseases (26.42%), attack of predators (11.32%), mortality of chicks (5.66%) and lack of nearby veterinary services (3.77%). The challenges expressed by those farmers who were not owning backyard poultry, but interested in taking-up were non-availability of chicks (41.67%) followed by high cost of chicks (25%), lack of technical guidance (16.65%), lack of backyard (12.50%) and lack of financial support (4.16%). The study highlighting the need of skill development among farmers in backyard poultry rearing on scientific lines for sustainable production. In order to overcome the constraints and also to achieve maximum benefits from backyard poultry farming, strategic and systemic extension and advisory interventions are required for promotion of backyard poultry production among the rural communities.

Keywords: Backyard, rural poultry, constraints, farmers

Introduction

Backyard poultry plays a predominant role in providing financial security for rural farmers and women in particular apart from supplementary nutrition to households. The shorter life span of birds facilitates quick returns with low investment and small space and also poultry has higher physiological adaptability to different agro-climatic conditions. Omonona and Oni (2004) [8] stated that poultry is one of the lively and swift way for rapid increase of protein supply in a short period. Though the commercialization switched poultry sector to profit oriented one and dominates backyard poultry both in population and profits, the increasing demand for backyard poultry products due to unique characteristics of quality, taste and safety, is offering employment and livelihood potential to rural people. It's an encouraging phenomenon that the Indian backyard poultry population showed a remarkable increase (45.78%) in the last decade (20th Livestock Census, 2019). The rural farmers need to be geared up towards sustainable backyard poultry production. As all farmers, villages and different states don't have the same requirements, where the role of an extension worker plays an important role in creating and modify the programmes and improve them to fit the requirements of different regions. Therefore, the present study was undertaken to analyse the constraints faced by rural backyard poultry rearers. Interventions suggested by extension advisory services are also discussed which may be helpful in overcoming the constraints of backyard poultry rearing.

Methodology

The current study was based on the data obtained through the survey of backyard poultry rearers of Krishna district, Andhra Pradesh using ex-post-facto research design. From this district three mandals were chosen randomly i.e., Kankipadu, Gannavaram and Unguturu. From each mandal 30 farmers were selected randomly, thus, a total of 90 rural farmers were

studied. The data was collected through a structured interview schedule and the collected data was compiled, tabulated and subjected to statistical analysis of frequencies and percentages.

Results and Discussion

Socio-economic profile of rural farmers

Nearly half of the farmers (46.67%) were middle aged followed by one-third (36.66%) old age farmers. Two third of the farmers belong to backward caste followed by one fourth farmers belonging to open caste category. Most of the farmers (42.2%) had secondary level education followed by one third (32.22%) illiterate farmers. Half of the (52.22%) farmers had less than one lakh of annual income. Land holding of the respondents, reveals that majority (37.78%) of the farmers were small and marginal land holders (Table 1).

Table 1: Distribution of respondents according to their profile

S. No	Variable	Category	Frequency	Percentage
1	Age	Young (35Y)	15	16.67%
		Middle (36-50Y)	42	46.67%
		Old (>50Y)	33	36.66%
2	Social status	Open category	23	25.57%
		Backward category	62	68.88%
		Scheduled caste	05	5.55%
3	Education	Illiterate	29	32.22%
		Primary	15	16.67%
		Secondary	38	42.22%
		Graduate	08	8.89%
4	Family type	Nuclear	61	67.77%
		Joint	29	32.23%
5	Income	More than 3 lakhs	22	24.22%
		1 to 3 lakhs	21	23.33%
		Less than 1 lakh	47	52.22%
6	Land holding	Landless	10	11.11%
		Marginal (4-8)	34	37.78%
		Small (< 4 acre)	34	37.78%
		Large (> 8)	12	13.33%

Constraints faced by backyard poultry farmers

The constraints faced by the farmers who were rearing backyard poultry were listed and ranked according to their frequency. A cursory look of table 2 reveals that low hatchability of eggs was the major constraint as reported by half (52.83%) of the farmers followed by high incidence of diseases (26.42%), attack of predators (11.32%), mortality of chicks (5.66%) lack of nearby veterinary services (3.77%) Similar findings were reported by Chaturvedani *et al* (2015)^[3] in their study on tribal backyard poultry rearers.

Table 2: Constraints faced by farmers in rearing backyard poultry

S.no	Constraints	Number of respondents	Percentage	Rank
1	Low hatchability of eggs	28	52.83	I
2	High incidence of diseases	14	26.42	II
3	Attack of predators	06	11.32	III
4	Mortality of chicks	03	05.66	IV
5	Lack of veterinary services nearby	02	03.77	V

Constraints of farmers who were not rearing backyard poultry, but interested in backyard poultry production

The farmers who are interested in rearing backyard poultry, but not able to take-up were also contacted to study their constraints which were ranked according to their frequencies.

Findings (Table 3) reveal that non-availability of chicks was the major constraint reported by 41.67 percent of farmers followed by high cost of chicks (25%), lack of technical guidance (16.65%), lack of backyard (12.50%) and lack of financial/credit support (4.16%).

Table 3: Constraints of farmers who were not rearing backyard poultry, but interested

S.no	Constraints	Number of respondents	Percentage	Rank
1	Non-availability of chicks	10	41.67	I
2	High cost of chicks	06	25.00	II
3	Lack of technical guidance	04	16.65	III
4	Lack of free space around the house	03	12.50	IV
5	Lack of financial/credit support	01	4.16	V

Suggested interventions to overcome the constraints perceived by the rural farmers in backyard poultry production

The following interventions are suggested in order to overcome the constraints perceived by poultry keepers as well as interested rural farmers in backyard poultry production.

To overcome the constraint of low hatchability of eggs rural youth can be encouraged and trained to establish community hatcheries on small scale which also can be a subsidiary occupation. Establishment of small-scale community hatcheries at village level may help in overcoming the constraints of non-availability and high cost of chicks apart from providing income generation to rural youth. Awareness among the rural farmers about the importance of deworming and vaccination to reduce morbidity and mortality of birds need to be taken up to tackle the incidence of diseases. The rural youth and women need to be trained in poultry vaccination and first aid measures to render services which can generate some gainful employment also. Samanta *et al.* (2018)^[9] suggested biosecurity strategies for backyard poultry to avoid any disease outbreaks. Farmers need to be trained on biosecurity measures which otherwise would adversely impact farmers regarding biosecurity measures and disease outbreaks (Alders *et al.*, 2010)^[2]. Care should be taken during brooding of chicks to withstand the extreme temperatures with proper covering and farmers need to be made aware of improved backyard varieties which can withstand extreme temperatures. Singh *et al.* (2018)^[10] stated that there was 96 percent survivability in summer season and 83 percent in the winter season among the *Vanaraja* and *Srinidhi* bird varieties which are improved dual-purpose backyard birds.

Though backyard poultry farming is an age old practice in villages, there is constant requisite of the knowledge and skill of rural farmers. A study by Alam (1997)^[1] about the success of Bangladesh model to improve backyard poultry farming was mainly attributed to skill enhancement programmes of farmers before the introduction of improved poultry varieties. Thus, rural farmers, especially women should be exposed to various training programmes, development of common information exchange platforms and educating stakeholders would benefit the backyard poultry farmers. For farmers with no free space around the house can practice small-scale intensive system at household level as per the FAO (2014)^[5] classification which requires less space when compared to other systems, but results high production of birds. About 4.65 percent farmers of the study area were interested in

backyard poultry farming, but couldn't adopt poultry rearing due to financial problems which can be overcome through farmer welfare oriented groups like Self-help groups and Farmer Production Organizations. The agencies concerned with promotion of backyard poultry and rural development should focus on these interventions for increased backyard poultry production thereby meeting the increasing demand for backyard poultry products resulting in improved livelihoods of rural people.

Conclusion

In order to overcome the identified constraints, extension personnel should work towards strengthening the programmes by addressing through strategic interventions in the areas of adoption of community hatcheries, biosecurity measures and strengthening strong communication network between veterinarians and rural stakeholders.

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