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Constraints perceived by the pig farmers in Jaipur and Alwar District of Rajasthan

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Abstract
A study was conducted in the Jaipur and Alwar district of Rajasthan to know the major constraints faced by pig farmers. 10 organized and 20 unorganized farm were selected randomly. In the constraint analysis, among the housing factor, inadequate space requirement with the highest mean score of 73.00 was first. It was revealed that lack of knowledge of feeding balanced ration was the most important constraints with a mean score of 88.55 and was ranked first among feeding factors. Among the breeding factors, the highest mean score 80.30 was found in case of non-availability of improved breed and was ranked first. Lack of veterinary services was the most serious constraints faced by the pig farmers with a mean score of 67.33 in healthcare constraint. Another important constraints faced by the farmers was lack of organized marketing facility with a mean score of 75.00. In miscellaneous constraints, lack of government policies 73.00 of the major constraints faced by the pig farmers.

Keywords: Constraints, factors, mean score

Introduction
Animal products plays an important part in food security for its contribution as source of high quality, balanced bioavailable protein and numerous critical micronutrients, including iron, zinc, and vitamins. Thus, moderate consumption of animal-sourced food plays an important role in achieving a nutritionally balanced diet, especially in the developing world.

Pigs have been described as one of the most prolific and fast growing livestock species which can convert food waste to valuable products, excel in converting feed to meat compared to other red meat animals, such as cattle, sheep and goats. (Vicente *et al.,* 2011) [4].

Rearing of pig in our country was earlier considered as the practice adopted by only economically and socially weaker (low caste) section of the society particularly in the mainland of the country, but with the passing of time, advancement of science and technology, problem of unemployment, increase gap between demand and supply of meat, other section of the society also started developing favorable attitude towards pig rearing.

In Rajasthan state, highest population was in Jaipur and Alwar district as 21.2 thousand and 15.1 thousand, respectively (BAHS, 2014) [1]. So far no systematic study have been conducted in the region regarding husbandry practices and marketing in piggery sector in the state of Rajasthan. Considering the importance of pig rearing, the present study was conducted to find out the existing management practices and major constraints in pig farming in the selected areas.

Research Methodology
The study was undertaken in two selected districts i.e. Alwar and Jaipur of Rajasthan. A total of 10 organized farms and 20 unorganized pig farms were randomly selected from each selected district for the study. Thirty possible constraints were enumerated after interviewing pig farmers. The constraints perceived by pig farmers were then categorized into six major categories *viz.* housing, breeding, feeding, health care and marketing constraints.

The data so collected were tabulated and analyzed statistically by using Garrett's Ranking Technique. The assigned ranks given by the respondents were counted into per cent position value by the following formula:

Per cent position=100 (R^{ij}-0.50)/ N^{j}
Where, R^{ij} = Rank given by the ith factor by the jth individual
N^{j}= Number of factor ranked by the jth individual.

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The percent position was then converted into scores by referring the table given by Garrett and Woodworth (1969). Then for each factor the scores of the individual respondents were added together and divided by the total number of respondents for whom scores were added. The mean scores were calculated by dividing the total score by the number of respondents. Overall ranking was obtained by assigning ranks in the descending order of the mean score.

Result and Discussion
Salient observations of different constraints faced by the farmers are presented in the Tables.

1. Housing constraints
The result findings related to housing practices constraints as presented in Table 1 shown that the Inadequate space requirement was ranked first with the highest mean score (73.00) followed by absence of guard rail (56.00), variation in floor slope (44.00) and Inadequate ventilation (28.00).

Table 1: Housing constraints of pig farming

S. no.	Housing Constraints	Garrett's total score	Garrett's mean score	Rank
1	Inadequate space Requirement	1460	73	I
2	Variation in floor slope	880	44	III
3	Absence of guard rail	1120	56	II
4	Inadequate ventilation	560	28	IV

2. Feeding constraints
It was revealed that lack of knowledge of feeding balanced ration was the most important constraints with a mean score of (88.55) and was ranked first (Table 2) followed by non-availability of balanced commercial pig feed (63.00), Lack of knowledge about the feeding concentrate feed (61.00), lack of knowledge of feeding mineral mixture (37.00), lack of knowledge of various group wise feeding (56.00) and lack of knowledge of feeding green forages (23.00).

Table 2: Feeding constraints of pig farming

S. no.	Feeding Constraints	Garrett's total score	Garrett's mean score	Rank
1	Lack of knowledge of feeding balanced ration	3157	88.55	I
2	Lack of knowledge of feeding concentrate	1220	61.00	III
3	Inadequate knowledge about feeding of mineral mixture	740	37.00	V
4	Lack of knowledge of various group wise feeding	1120	56.00	IV
5	Non-availability of balanced commercial pig feed	1260	63.00	II
6	Lack of knowledge of feeding green forages etc.	460	23.00	VI

3. Breeding constraints
The result findings of breeding constraints enlisted in the Table 3 indicated that the highest mean score (80.30) was found in case of non-availability of improved breed and was ranked first followed by lower productivity of indigenous animals (61.60), non-availability of improved pedigree boar for natural service (46.20) and lack of knowledge heat detection (29.40).

Table 3: Breeding constraints of pig farming

S. no.	Breeding Constraints	Garrett's total score	Garrett's mean score	Rank
1.	Non-availability of improved breed	1606	80.30	I
2.	Non-availability of improved pedigree boar for natural service	924	46.20	III
3.	Lower productivity of animals	1232	61.60	II
4.	Lack of knowledge in heat detection	588	29.40	IV

4. Health care constraints
The constraints related to health care has been presented in Table 4 shown that the lack of veterinary facilities (78.00) with rank first was the most important constraint faced by pig farmers, mortality of pig due to unidentified contagious diseases was ranked second with mean score of 66.00 followed by mortality of piglets before weaning (57.00), lack of knowledge about the important disease of pig (50.00), non-availability of vaccines against harmful diseases (40.85), lack of knowledge about the bio-security (34.00) and inadequate knowledge about deworming (21.00).

Table 4: Healthcare constraints of pig farming

S. no.	Healthcare Constraints	Garrett's total score	Garrett's mean score	Rank
1.	Mortality of pig due to unidentified diseases	1320	66.00	II
2.	Lack of veterinary services	1560	78.00	I
3	Mortality of piglets before weaning	1140	57.00	III
4	Inadequate knowledge about deworming of pigs	420	21.00	VII
5	Lack of knowledge about the bio-security of piggery	680	34.00	VI
6	Lack of knowledge about the important diseases of pigs	1000	50.00	IV
7	Lack of knowledge of vaccines against most harmful diseases of pigs	817	40.85	V

5. Marketing constraints
Present findings revealed that the lack of organized marketing with a mean score of 75.00 as ranked first (Table 5) was the most important constraints perceived by the pig farmers followed by lack of market nearby (60.00), exploitation of farmers by middlemen (54.10), Lack of consumers in the area (34.60) and social taboos (24.00).

Table 5: Marketing constraints of pig farming

S. no.	Marketing Constraints	Garrett's total score	Garrett's mean score	Rank
1.	Lack of organized marketing	1500	75.00	I
2.	Lack of consumers in area	692	34.60	IV
3	Exploitation by middleman	1000	50.00	III
4.	Lack of marketing area nearby	1200	60.00	II
5.	Social taboo	480	24.00	V

6. Miscellaneous constraints

In the present study lack of government policies, ignorance among pig farmers, lack of technical hand and popularity of pork were included in the miscellaneous constraint factor. The result findings as presented in Table 6 shown that lack of government policies with the mean score of 73.00 was ranked first and followed by lack of technical hand, Ignorance of pig farmers and popularity of pork with mean score of 57.00, 44.00 and 27.00, respectively.

Similar findings has also been reported by Islam *et al.* (2016) [2] and Lavanya *et al.* (2013) [3].

Table 6: Miscellaneous pattern of pig farming

S. no.	Miscellaneous Constraints	Garrett's total score	Garrett's mean score	Rank
1.	Lack of government policies	1460	73.00	I
2	Ignorance among pig farmers	880	44.00	III
3	Lack of technical hand	1140	57.00	II
4	Less Popularity of pork	540	27.00	IV

Conclusion

It is concluded from the present study among various livestock species, pig is considered as one of the most meat producing animal around the world, pork contributes highest (36.57% of total meat production) towards the meat basket of the world, Share of meat production from livestock sector (1.96%) of India's towards world meat production is very less and contribution of piggery is even very negligible. The limited availability of the breeding stock, lack of awareness about scientific rearing, lack of marketing facilities, higher mortality of pig due to unidentified contagious disease and so on with different Garrett's mean score were the most important constraints related to various pig farming management practices faced by the pig farmers.

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