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Adoption of Scientific Poultry Farming Practices by the Farmers in Ajmer District of Rajasthan

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ABSTRACT

Poultry farming has proved that it can ensure economic and social rehabilitation of weaker sections of the society. The knowledge and adoption of poultry farming are inter linked. It was observed that all the three categories of registered farmers adopted the recommended poultry farming practices at higher extent in comparison to unregistered poultry farmers. Although, a highly significant difference between different categories *i.e.* between the big and medium, big and small, medium and small of registered and unregistered poultry farmers was observed about extent of adoption of the recommended poultry farming practices. The study concludes that registered poultry farmers may have obtained training and exposure which enhanced the knowledge and ultimately had to encourage the farmers for more adoption of recommended poultry farming practices.

Keywords : Poultry, Knowledge, Adoption, Improved technology

INTRODUCTION

Presently, the poultry is witnessing the decade of processing, automation and integration with farward and backward linkages. There are wide variations in the production and consumption pattern of poultry in various regions. Under rural conditions, the consumption is still less. India's earning from export of poultry products is very low. As regards scientific achievements, considerable research and development work has been done. But still a huge gap lies in the field potential and productivity level. Indeed poultry industry of Rajasthan has also witnessed many ups and downs even since it began to transform itself into a highly vibrant business from merely a backyard activity. Layer farming gained momentum up to early nineties but after that, most of the layer farmers winded up their profession of layer keeping and broiler farming began to spread its wings. Right from the time of its set up, broiler industry also suffered several jolts owing to increased cost of feed, frequent incidence of diseases and shrinking margins. The poultry farmers are still lacking in adoption of improved poultry practices. There is a wide difference between what are the recommended practices of poultry farming and what type of practices actually they are using. Keeping the aforesaid facts in mind, the present study entitled was under-taken with the specific objective "to measure the extent of adoption of recommended poultry farming practices by the farmers"

METHODOLOGY

The present study was conducted in four selected blocks *viz.,* Srinagar, Pisangan, Jawaja and Silora of Ajmer district of Rajasthan as having the maximum poultry farms in operation. A list of all the poultry farms, (registered and unregistered) which is in operation atleast for last three years were obtained from concerned officials of the selected blocks. From the above list, 30 per cent registered and unregistered respondents were selected from each block. The poultry farmers were grouped into three categories to measure the extent of adoption of recommended poultry farming practices by the farmers" i.e. respondents possessing 1000-5000 birds were formed as small poultry farmer, those possessing upto 10,000 birds, as medium poultry farmers and all those possessing poultry birds above 10,000 formed the third category i.e. big, poultry farmers. A list of total number of small, medium and big poultry farmers (R + UR) of the selected blocks was prepared. A sample size of 248 respondents was drawn from the list by consisting of registered (143) and unregistered (105) poultry farmers with the help of systematic sampling with proportional allocation. To measure the extent of adoption of recommended poultry farming practices by the farmers an adoption index was developed based on expert's opinion and with the help of an interview schedule developed by investigator, the information on the aspects under study were recorded by using personal interview techniques to collect face data. Adoption index was developed in this way:

$$\text{Adoption index} = \frac{\text{Total adoption scores obtained by the respondents}}{\text{Maximum attainable scores}} \times 100$$

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Based on mean and standard deviation, the adoption was categorised into three groups *i.e.* low, medium and high for small, medium and big registered and unregistered poultry farmers. Categorywise comparison was also made to measure the significant difference between two categories of registered and unregistered farmers regarding adoption of recommended poultry farming practices by using 'Z' test.

RESULTS AND DISCUSSION

The data in Table 1 revealed that 53.85 per cent (35) registered big farmers, were found to have medium adoption whereas, 20.00 per cent (13) and 26.15 per cent (17) of respondents, were having high and low adoption of recommended poultry farming practices, respectively.

Table 1: Extent of adoption of recommended poultry farming practices by the different categories of registered farmers

A. Big farmers **n = 65**

Adoption categories	Frequency	Percentage
Low (< 53.76)	17	26.15
Medium (from 53.76 to 60.56)	35	53.85
High (> 60.56)	13	20.00

$\bar{X}$ = 57.16, σ =3.40

B. Medium farmers **n= 49**

Adop tion categories	Frequency	Percentage
Low (< 48.96)	8	16.03
Medium (from 48.96 to 59.46)	34	69.69
High (> 59.46)	7	14.28

$\bar{X}$ = 54.21, σ =5.25

C. Small farmers **n = 29**

Adoption categories	Frequency	Percentage
Low (< 46.65)	7	24.14
Medium (from 46.65 to 55.47)	17	58.62
High (> 55.47)	5	17.24

$\bar{X}$ = 51.06, σ =4.41

The data in Table 1B indicate that 69.69 per cent (34) registered medium farmers were found to have medium adoption, whereas, 14.28 per cent (7) and 16.03 per cent (8) of respondents were having high and low adoption of recommended poultry farming practices, respectively. The data in Table 1C depict that 58.62 per cent (17) registered small farmers were found to have medium adoption whereas, 17.24 per cent (5) and 24.14 per cent (7) of respondents were having high and low adoption of recommended poultry farming practices, respectively.

Table 2: Extent of adoption of recommended poultry farming practices by the different categories of unregistered farmers

A. Big farmers **n = 22**

Adoption categories	Frequency	Percentage
Low (< 31.72)	7	31.82
Medium (from 31.72 to 41.90)	12	54.54
High (> 41.90)	3	13.64

$\bar{X}$ = 36.81, σ =5.09

B. Medium farmers **n = 30**

Adoption categories	Frequency	Percentage
Low (< 26.92)	7	23.33
Medium (from 26.92 to 35.80)	19	63.33
High (> 35.80)	4	13.34

$\bar{X}$ = 31.36, σ =4.44

C. Small farmers **n = 53**

Adoption categories	Frequency	Percentage
Low (< 24.84)	14	26.42
Medium (from 24.84 to 32.10)	31	58.49
High (> 32.10)	8	15.09

$\bar{X}$ = 28.47, σ =3.63

The data in Table 2 revealed that 54.54 per cent (12) unregistered big farmers were found to have medium adoption whereas, 13.64 per cent (3) and 31.82 per cent (7) of respondents were found to have high and low adoption of recommended poultry farming practices, respectively. The data in Table 2B indicate that 63.33 per cent (19) unregistered medium farmers were found to have medium adoption whereas, 13.34 per cent (4) and 23.33 per cent (7) of respondents were having high and low adoption of recommended poultry farming practices, respectively. The data in Table 2C depict that 58.49 per cent (31) unregistered small farmers were found to have medium adoption whereas, 15.09 per cent (8) and 26.42 per cent (14) of respondents were having high and low adoption of recommended poultry farming practices, respectively.

Table 3: Category-wise comparison between different categories of registered farmers in adoption of the recommended poultry farming practices

n = 143

Category one	Category two	Mean score obtained by		"Z" value
		Category one	Category two	
Big farmers (n=65)	Medium farmers (n=49)	57.16	54.21	3.43**
Big farmers (n=65)	Small farmers (n=29)	57.16	51.06	6.63**
Medium farmers (n=49)	Small farmers (n=29)	54.21	51.06	2.84**

** Significant at 0.01 level of probability

These findings are in agreement with the findings of Bhati *et al.* (1997-98) and Jagadeeshwara *et al.* (1997-98).

Looking to the farmers category-wise analysis of the adoption level regarding recommended poultry farming practices, it was observed that majority of all the three categories *viz.,* big, medium and small farmers had low to medium adoption of recommended poultry farming practices. The low to medium adoption level might be attributed to fear among the farmers about innovations, illiteracy, less exposure to information sources, non-availability of the literature about the recommended poultry farming practices.

It means that literacy and participation in poultry training programmes by the respondents appeared to be responsible for their higher or lower adoption about recommended poultry farming practices.

These findings are supported by findings of Podikunju (1999 (Patel *et al.* (1999-2000) and Mundawa and Patel (1999-2000).

It is the general notion among the people that the adoption about the recommended poultry farming practices varies in different categories of farmers. With this view in mind a comparison has also been made between different categories of farmers about adoption of the recommended poultry farming practices by applying 'Z' test.The statistically data regarding this aspect has been represented in table 3, which indicate that the calculated values of 'Z' was 3.43 for big and medium farmers, 6.63 for big and small farmers, 2.84 for medium and small registered farmers, which were statistically significant at 0.01 level of probability.

Therefore, it might be concluded that there was a significant difference between the adoption level of big and medium farmers, big and small farmers, medium and small farmers about recommended poultry farming practices. This shows that big farmers might have more exposure, frequent contact with poultry training centres and more literacy were found in comparison to the medium and small registered poultry farmers.

Table 4: Category-wise comparison between different categories of unregistered farmers in adoption of the recommended poultry farming practices

n= 105

Category one	Category two	Mean score obtained by		"Z" value
		Category one	Category two	
Big farmers (n=22)	Medium farmers (n=30)	36.81	31.36	4.01**
Big farmers (n=22)	Small farmers (n=53)	36.81	28.47	7.01**
Medium farmers (n=30)	Small farmers (n=53)	31.36	28.47	3.04**

** Significant at 0.01 level of probability

The comparison has also been made between different categories of unregistered poultry farmers about adoption of the recommended poultry farming practices by applying 'Z' test. The statistically data regarding this aspect has been represented in table 4, which indicate that the calculated values of 'Z' was 4.01 for big and medium farmers, 7.01 for big and small farmers, 3.04 for medium and small unregistered poultry farmers, which were statistically significant at 0.01 level of probability. Therefore it might be concluded that there was a significant difference between the adoption level of big and medium farmers, big and small farmers, medium and small farmers about recommended poultry farming practices.

This might be due to the fact that big farmers might have benefited by making the cosmopolite contacts with poultry officials by which they might have got more exposure and contact with poultry officials and progressive poultry farmer in comparison to the medium and small unregistered poultry farmers.

These findings are supported by the findings of Bhati *et al.* (1997-98) and Jagadeeshwara *et al.* (1997-98).

CONCLUSION

The study revealed that 53.85, 26.15 and 20.00 per cent of the registered big farmers were found to have medium, low and high adoption, respectively about the recommended poultry farming practices. Whereas 69.39, 16.03 and 14.28 per cent medium registered farmers were having meidum, low and high adoption, respectively about recommended poultry farming practices. While 58.62, 24.14 and 17.24 per cent of registered small poultry farmers had medium, low and high adoption, respectively about recommended poultry farming practices. It was further concluded that there was a highly significant difference between the big and medium, big and small, medium and small registered farmers extent of adoption of about the recommended poultry farming practices.It was found that 54.54, 31.82 and 13.64 per cent of the big unregistered farmers were found to have medium, low and high adoption of the recommended poultry farming practices. Whereas 63.33, 23.33 and 13.34 per cent medium unregistered farmers were found to have medium, low and high adoption, respectively about recommended poultry farming practices. While, 58.49, 26.42 and 15.09 per cent small unregistered poultry farmers had medium, low and high adoption respectively, about recommended poultry farming practices. There was a highly significant difference between the big and medium, big and small, medium and small unregistered farmers about adoption of the recommended poultry farming practices.

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