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Adoption of T&D Pig Breed Innovation in Eastern Region of India

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ABSTRACT

A survey was conducted over 240 pig farmers' purposively selected from four states, *viz*., Jharkhand, Bihar, Chhattisgarh and West Bengal and one district was selected from each state, based on the population of pig farmers with the assistance of Krishi Vigyan Kendras (KVKs) in these states. Research paper highlights the innovativeness and three types of innovation-decisions *viz*., optional, collective and authority decisions. Results reveal that majority of respondents (86.70%) had high innovativeness. A large number of the respondents (42.90%) had taken individual decision to adopt 'T&D' pig innovation followed by (37.50%) authoritative decision and 21.2 per cent of the respondents took decision in consultation with the scientists of Agricultural University and Krishi Vigyan Kendra for adoption of 'T&D' pig innovation.

Key Words: Adoption, Innovativeness, Type of Innovation-Decision, 'T&D', Pig.

INTRODUCTION

The livestock innovations contributed by the technological explosion in the area of livestock research have made the white revolution a successful endeavour. However, there is still a wide gap between available technology and its adoption by the farmers in livestock sector. Pig production in India is characterized with wide gap between research and adoption. Most of the research results and recommended innovations concerning pigs in particular have remained confined to the four walls of laboratories and libraries. It is, however, gratifying to note that Government of India initiated Comprehensive Piggery Development Programme in 1959-60 towards the end of 2nd five year plan. In order to make pig farming more popular and profitable, the scientists of Birsa Agricultural University, Ranchi, Jharkhand (India) evolved a new breed of black colour pig named T & D by crossing exotic pig Tamworth, a British pig and Local Pig in 1989, which is more remunerative due to its black colour (auspicious), faster growth, better reproductive performance, disease resistance and better adaptability at farmers' door (Verma, 2003: Mahto, 2006; Singh, 2009 and Seth *et al*, 2017). This is considered as most suitable breed of pig for rearing in villages of Jharkhand. T&D pig is widely spread in Jharkhand, Bihar, West Bengal, Madhya Pradesh, Orissa, Chhatishgarh and North Eastern states *viz*., Assam, Meghalaya, Arunachal Pradesh and Manipur. Especially, in recent past, its adoption is growing at fastest rate throughout Jharkhand and adjoining states as its benefit is observable over the years (Singh, 2009: Seth, 2012; Seth *et al*, 2015).

MATERIALS AND METHODS

The study employed a combination of multistage random and purposive sampling technique to select the ultimate sampling units T&D pig was developed at Birsa Agricultural University, Ranchi, Jharkhand in 1989 and gradually spread within the Jharkhand State (23° 23' N and 85° 23' E) and in adjoining

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States *viz*., West Bengal (23° 14' N and 87° 07' E), Bihar (42° 49' N and 85° 01' E) and Chhattisgarh (22° 53' N and 84° 12' E). One district was selected from each State, *viz*. Ranchi district from Jharkhand, Bankura district from West Bengal, Jashpur district from Chhattisgarh and Gaya district from Bihar during the year 2012. These districts were selected on account of having large number of pig farmers among all the districts in the respective states. The assistance of Krishi Vigyan Kendra (KVKs) in these states was sought to identify the districts and KVKs which had maximum involvement in pig farming. Surveys for the study were purposely targeted at farmers who own pigs. Only those farmers were considered who were engaged in pig husbandry for a minimum period of 5 yr. so as to have proper and reliable response on different variables. A semi-structured questionnaire was administered to 60 randomly selected farmers in each state, thus, making a sample size of 240 farmers.

RESULTS AND DISCUSSION

The data (Table 1) revealed that majority of respondents (86.7%) had high innovativeness and about 13.3 per cent respondents were found to be having medium innovativeness. Most of the innovation decisions by the farmers are optional innovation decisions. The data (Table 2) revealed that Jharkhand (41.7%), West Bengal (38.3%), Chhattisgarh (35.0%) and Bihar (56.7%) pig farmers took individual decision to adopt T&D pig innovation in their farms. Overall, 42.9 per cent pig farmers took individual decision for adoption of T&D pig. The data pertaining to those who took collective decision were further analyzed for determining whom the pig farmers consulted for

Table 1. Distribution of the farmers according to their innovativeness.

Sr. No.	Category	Jharkhand		West Bengal		Chhattisgarh		Bihar		Pooled	
		F	%	F	%	F	%	F	%	F	%
1.	Low (30-40)	00	0.0	00	0.0	00	0.0	00	0.0	00	0.0
2.	Medium (41-50)	05	08.30	11	18.30	07	11.70	09	15.00	32	13.30
3.	High (51-60)	55	91.70	49	81.70	53	83.30	51	85.00	208	86.70
4.	Total	60	100	60	100	60	100	60	100	240	100

F - Frequency

Table 2. Distribution of the respondents on the basis of type of innovation decision.

Type of Innovation decision	Jharkhand		West Bengal		Chhattisgarh		Bihar		Pooled	
	F	%	F	%	F	%	F	%	F	%
A. Individual decision	25	41.70	23	38.30	21	35.00	34	56.70	103	42.90
B. Collective decision in consultaion with	13	21.70	09	15.00	13	21.70	12	20.00	47	19.60
-Family members	08	13.30	06	10.00	10	16.70	07	11.70	31	12.90
-Friends and neighbours	03	05.00	02	03.30	02	03.30	03	05.00	10	04.20
-Family members, friends and neighbours	02	03.30	01	01.70	01	01.70	02	03.30	6	02.50
C. Authoriative decision in consultaion with										
-Agricultural University/KVK	16	26.70	25	41.70	14	23.30	08	13.30	51	21.20
-Department of Animal Husbandry	06	10.00	03	05.00	12	20.00	06	10.00	23	09.60

taking decision. It was apparent that 19.60 per cent pig farmers took collective decision and 12.90 per cent took collective decision in consultation with family members and 4.20 per cent in consultation with friends and neighbours in the study area. Only 2.5 per cent of respondents took collective decision in consultation with both family members along with friends and neighbours. It was further noticed that a high number of pig farmers (37.5%) took authoritative decision in adopting T&D pig innovation and 21.20 per cent took authoritative decision in consultation with Agricultural University/KVKs officials and about 9.60 per cent of respondents took authoritative decision in consultation with department of animal husbandry in all the four states under study. Thus, it was evident that the fastest rate of adoption of innovation stems from authority decisions (depending on how innovative authorities are). Optional decisions can usually be made more rapidly than collective decisions. Although made more rapidly, authority decisions may be circumvented by members of a system during implementation. The type of innovation decision for a given idea may change or be changed over time (Rogers, 2003;Seth, 2012).

CONCLUSION

It was concluded that majority of the pig farmers had taken individual decision to adopt T&D pig innovation followed by authoritative decision to adopt the innovation in consultation with the scientists of Agricultural University, KVKs and Department of Animal Husbandry for the adoption of T&D pig innovation.

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