

Original Research Article

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Constraints Experienced During Ruminant Rearing Practices by the Trainees of KVKs in South Chotanagpur Division

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ABSTRACT

The study was conducted to review the situation of ruminant rearing at South Chotanagpur division with objectives to identify the major constraints of on-campus trainees of KVKs in adapting the improved animal husbandry practices. In Breeding of large animals non-availability of A.I facility was the main constraints in Ranchi (36%) as well as Lohardaga (32%) KVKs villages. And in the feeding, concentrate ingredients feed were costly was the main constraints in Ranchi KVKs (39%) whereas in Lohardaga KVKs villages the main constraints was unavailability of concentrates mixture (42%). Lack of knowledge about IDMP was the main constraint in both KVKs villages 31% and 34% respectively. For disease control the high cost of veterinary medicine was the main constraint in Ranchi KVKs villages (37%) whereas in Lohardaga KVKs the main constraint was non availability of veterinary dispensary in the village (71%). However, for the improved goat rearing practices the lack of space (46%) was the main constraint in Ranchi KVKs villages whereas in case of Lohardaga KVKs lack of knowledge about spraying of sheds (48%) was the main constraint.

Keywords

Constraints, Ruminant Rearing, KVKs, South Chotanagpur Division

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Introduction

Adoption is “a decision to make use of new ideas or practices”. In this context it refers to the degree of actual use of recommended improved animal husbandry practices by the farmers. It is a known fact that, for most of the world’s poorest countries, livestock provides the leading source of employment and contributes large fractions to national income. The ability of the farmers to generate more

income from livestock rearing largely depends on the effective adoption of improved animal husbandry practices that lead to increase in productivity. On- campus vocational training for the farmers proves to be a significant input in accelerating farm production. The turning point and giant leap in this direction came with the establishment of Farm Science Centre or Krishi Vigyan Kendras (KVK) by ICAR in 1974 and since then 694 KVKs have been established. Having district as its jurisdiction

area, KVKs have played crucial role in ToT programme and thereby enhancing production. Thus, the KVK's were originally designed to provide vocational training for rural youth to prepare them for self-employment and livelihood. In the present study, an effort has been made to assess the different constraints in the adoption of improved ruminant rearing practices of which affect effectiveness of training programme and ultimately the production.

Materials and Methods

The present study was carried out in purposively selected south Chotanagpur division of Jharkhand because South Chotanagpur division owing huge population of farmers those are predominantly involved in livestock rearing. South Chotanagpur division is one of the five divisions of Jharkhand state. The division comprises the following districts: Gumla, Khunti, Lohardaga, Ranchi and Simdega. There was one KVK in each district. Out of these five KVKs, two are promoted by NGOs, two are organized by BAU (Ranchi) and remaining one is operated by ICAR. One KVK, each from two groups i.e. one owned by NGOs and another by BAU, was randomly selected for study; viz. Ranchi and Lohardaga respectively. Three blocks from each identified district were selected randomly. Thus total 6 blocks were selected for the research study. The selected blocks were Kanke, Ormanjhi and Bundu from Ranchi whereas, Lohardaga, Kisko and Senha from Lohardaga. From each selected block, two villages were selected randomly. The 12 selected villages were Boreya, Nagri, Anandi, Pundag, Labga, Kanchi, Harmu, Kutmu, Kocha, Hisri, Senha, Chitri. From each selected village 15 respondents were selected for study. Therefore, 90 respondents were selected from 2 districts or total 180 respondents were selected from the division.

The primary data were collected from the respondents by personal interview, survey, focus group discussion and participant observation methods. Both structured and semi-structured interview were conducted for collection of data. The percentage, frequency and ranking were used as statistical tool as per Snedecor and Cochran (2004).

Results and Discussion

Constraints in adoption of improved ruminant rearing practices

Constraints in adoption of improved breeding practices

Four different constraints which were coming in the way of adoption of improved dairy breeding practices they are: non availability of A.I facility, distant location of A.I. centre, non-availability of trained personnel for doing P.D. in time and lack of knowledge about improved dairy breeding practices. Table 1 shows that majority of the respondents of both Ranchi and Lohardaga KVKs expressed the non-availability of A.I. facility (41.11% and 32.22% respectively) as the major constraint. This finding is in line with that of Pandey (1996).

Table 1 shows that respondents of both Ranchi and Lohardaga KVKs expressed the Non availability of trained personnel for doing P.D. in time distant (35.56% and 28.89 % respectively) as second major constraint. Similar observation was also made by Rao (1987) and Pandey (1996). Similarly distant location of A.I. Centre were also reported by Sharma (1980), Kokate (1984), Pandey (1996), Seth (2004) as the factors limiting the adoption of A.I. Some of the respondents of both Ranchi (15.56%) and Lohardaga (16.67%) KVKs expressed the lack of knowledge about improved dairy breeding practices as constraints.

Constraints of Improved feeding practices

Proper feeding of animal is one of the most important cardinal pillars of dairy development. An attempt was made to identify the constraints in adoption of improved feeding practices. The results are presented in Table 1. Six different constraints which were found in the adoption of improved feeding practices are unavailability of concentrate mixture, concentrate ingredients/compounded feed are costly, lack of irrigation for fodder cultivation, lack of space for fodder cultivation, unawareness that extra ration should be given to pregnant cow during advanced pregnancy and unawareness of the benefits of colostrum feeding.

Table 1 reveals that majority of the respondents of both Ranchi and Lohardaga KVKs expressed the high cost of concentrate/compounded feed (38.81% and 34.44% respectively) as the major constraint.

High cost of concentrates was identified as the most serious constraint by various workers (Subramanian and Knight 1982, Sohal 1985, Nataraju and Channegowda 1986, Nayak *et al.*, 1986, Rao 1987, Verma 1993, Ram 1994, Chugh 1995 and Pandey 1996).

Respondents of both Ranchi and Lohardaga KVKs expressed the unavailability of concentrate mixture (31.11% and 41.11% respectively) as one of the important constraint.

In Ranchi KVK, the respondents expressed that lack of space for fodder cultivation (34.44%) and also lack of irrigation for fodder cultivation (26.67%) as one of the constraining factors followed by unawareness that extra ration should be given to pregnant cow during advanced pregnancy (18.89%), unawareness of the benefits of colostrums feeding (9.99%).

Whereas, In Lohardaga KVK, the trainees expressed unawareness that extra ration should be given to pregnant cow during advanced pregnancy (26.67%) as a bottleneck in adoption of improved feeding practices followed by lack of space for fodder cultivation (23.33%), lack of irrigation for fodder cultivation (20%) and unawareness of the benefits of colostrums feeding (12.22%).

Constraints in adoption of improved dairy management practices

A glance at the Table 1 reveals that the respondents of both Ranchi and Lohardaga KVKs (31.11% and 34.44% respectively) lacked the knowledge about IDMP.

However, from the same table it is also clear that about 12.22 %respondents Ranchi KVK and 16.66 %respondents of Lohardaga KVK even though possessing knowledge about IDMP showed their negligence to adopt IDMP.

Constraints in disease control

Six different constraints were identified which acted as bottleneck in disease control. They are non-availability of veterinary dispensary in the village, high cost of veterinary medicine, lack of knowledge in which disease animal should be isolated, lack of interest of field veterinary staff in doing vaccination/treatment, non-availability of medicine/vaccine in dispensary, non-availability of veterinarian regularly at the veterinary dispensary and charging exorbitant amount by the veterinary staff for the treatment of the animals.

Table 1 reveals that respondents of both Ranchi and Lohardaga KVKs expressed the non-availability of veterinary dispensary in the villages (36.67% and 33.33% respectively) as a major constraint.

Table.1 Constraints in adoption of improved dairy husbandry practices (IDHP)

Sl. no.	Constraints	RANCHI(n=90)			LOHARDAGA(n=90)		
		f	%	rank	f	%	Rank
1	Breeding						
	1. Lack of knowledge about improved dairy breeding practices	6	6.67	IV	8	8.88	IV
	2. Non-availability of AI facility	32	41.11	I	29	32.22	I
	3. Non-availability of trained personnel for doing PD in time	37	35.56	II	26	28.89	II
	4. Distant location of AI centre	14	15.56	III	15	16.67	III
2	Feeding						
	1. Unawareness of the benefits of colostrum feeding	9	9.99	VI	11	12.22	VI
	2. Unavailability of concentrate mixture	28	31.11	III	37	41.11	I
	3. Concentrate ingredients/compounded feed are costly	35	38.89	I	31	34.44	II
	4. Unawareness that extra ration should be given to pregnant cow during advanced pregnancy	17	18.89	V	24	26.67	III
	5. Lack of irrigation for fodder cultivation	24	26.67	IV	18	20	V
	6. Lack of space for fodder cultivation	31	34.44	II	21	23.33	IV
3	Managements						
	1. Lack of knowledge about IDMP	28	31.11	I	31	34.44	I
	2. Reluctance of farmers	11	12.22	II	15	16.66	II
4	Disease control						
	1. Non-availability of veterinarian regularly at the veterinary dispensary	29	32.22	II	18	20	IV
	2. Lack of interest of field veterinary staff in doing vaccination/treatment	14	15.55	V	19	21.11	III
	3. Lack of knowledge in which disease animal should be isolated	19	21.11	IV	15	16.67	VI
	4. High cost of veterinary medicine	33	26.67	III	16	17.78	V
	5. Non availability of veterinary dispensary in the village	24	36.67	I	30	33.33	I
	6. Non-availability of medicine\vaccine in dispensary	11	12.22	VI	20	22.22	II

Table.2 Constraints in adoption of improved goat rearing practices

Sl. no.	Constraints	RANCHI(n=90)			LOHARDAGA(n=90)		
		F	%	rank	F	%	Rank
1	Unawareness about the desirability of cross breeding	14	15.55	VII	27	30	V
2	Concentrate mixture is costly	37	41.11	II	24	26.67	VI
3	Lack of knowledge about prevention of pregnant doe from grazing during last 15 days of pregnancy and provision of extra ration	24	26.67	III	21	23.33	VII
4	Belief that castration at young age result in ill health of goats	9	9.99	X	18	20	VIII
5	Non-availability of deworming medicine	17	18.89	VI	11	12.22	X
6	Lack of knowledge about dipping	29	32.22	IV	37	41.11	II
7	Lack of knowledge about benefits of colostrums	11	12.22	VII	16	17.78	IX
8	Lack of knowledge about spraying of sheds	21	23.33	V	43	47.78	I
9	Lack of space	41	45.55	I	35	38.89	III
10	Non-availability of vaccine	8	8.88	VIII	30	33.33	IV

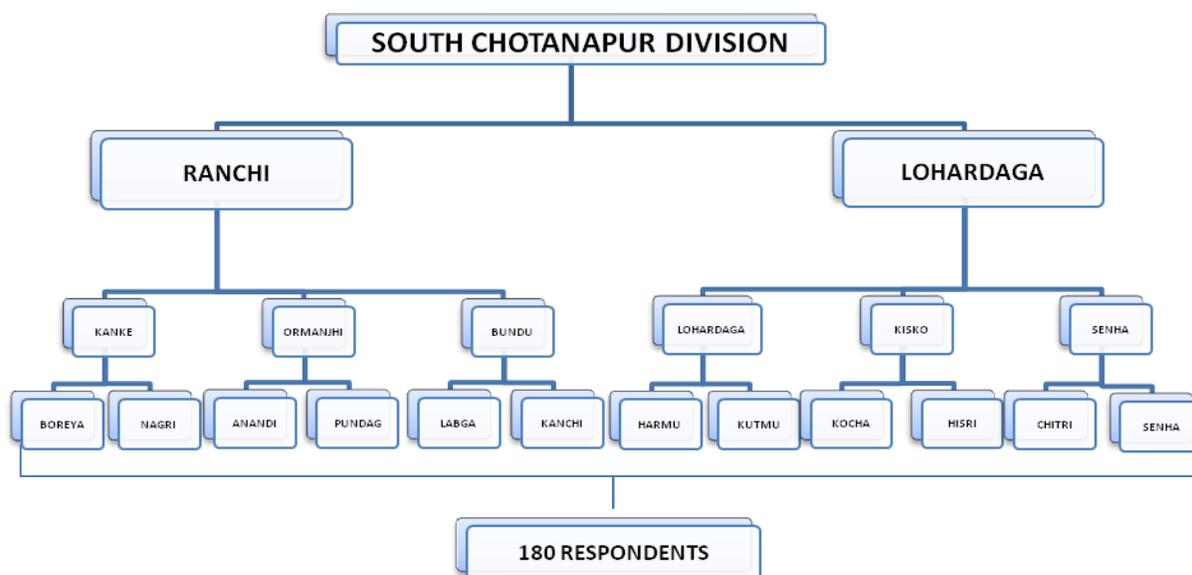


Table 1 shows that respondents of Ranchi KVK expressed non-availability of veterinarian regularly at the veterinary dispensary (32.22%) high cost of veterinary medicine (26.67%) as one of the important constraint followed by lack of knowledge in which disease animal showed be isolated (21.11%), lack of interest of field veterinary staff in doing vaccination/treatment (15.55%) and non-availability of medicine/vaccine in dispensary (12.22%).

Table 1 reveals that respondents of Lohardaga KVK expressed non-availability of medicine/vaccine in dispensary (22.22%) as one of the important bottleneck in disease control followed by lack of interest of field veterinary staff in doing vaccination/treatment (21.11%), non-availability of veterinarian regularly at the veterinary dispensary (20%), high cost of veterinary medicine (17.78%) and lack of knowledge in which disease animal should be isolated (16.67%).

Kumar (1995) reported that dairy farmers in Banka district of Bihar faced irregular supply of vaccines from Department of Animal Husbandry (DAH). The second ranked constraint Lohardaga KVK as evident from Table 1 was non availability of medicine/vaccine in dispensary is endorsed Sharma *et al.*, (2009), Nayak *et al.*, (1986) and Raju, Maraty (1991), Kumar (1995) and Pandey (1996) who found DAH personnel handicapped in supplying vaccines to the farmers due to several reasons viz., inadequate and untimely supply of and poor storage facilities for vaccine.

It is apparent that DAH was primarily responsible for most of the constraints experienced by the cattle owners in getting their animals treated. The very reasons like non availability of medicines in the dispensary and at the village level coupled with high treatment fee charged by DAH staff might have catalyzed the farmers to loose faith in modern medicines and to depend mostly on the traditional modes of treatment as well as local quacks. This is in line with that of Pandey (1996).

To militate against these problems, Government must increase the number of veterinary staff in the area and simultaneously ensure adequate supply of medicines in the veterinary dispensary.

Lack of knowledge in which disease animal should be isolated was an important constraint. This is in line with that of Pandey (1996). Some of the respondents also held the view that animal will die soon if isolated from herd.

In case of such unscientific belief the responsibility lies on the part of the Extension personnel who must educate the farmers about the contagious nature of communicable diseases and benefits of isolation.

Constraints in adoption of improved goat rearing practices

Goat is one of the most neglected domestic animal species in terms of technical know-how and has been domesticated by poorest of poor farmers. After establishment of the All India coordinated research on goats in 1972, the real worth of goat as meat producing animal has been observed by scientist as well as the potential farmers. Since then, there have been tremendous improvements in scientific goat rearing practices. Constraints experienced by the goat-rearers were ascertained and are depicted in Table 2.

Breeding

About 15.55 % respondents of Ranchi KVK and 30% respondents of Lohardaga KVK had expressed unawareness about the desirability of cross breeding as a major constraint.

Feeding

Three major constraints coming in the way of adoption of improved feeding practices were concentrate mixture is costly, lack of knowledge about prevention of pregnant doe from grazing and provision of extra ration during last 15 days of pregnancy and lack of knowledge about benefits of colostrums. High cost of concentrate mixture was a constraining factor expressed by 41.11 % respondents of Ranchi KVK and 26.67 % respondents Lohardaga KVK respectively. Similar observations were also made by Sivanarayana and Reddy (1995).

A glance at the Table 2 reveals that 26.67 % respondents of Ranchi KVK and 23.33% Lohardaga KVK respectively had expressed lack of knowledge about prevention of pregnant doe from grazing and provision of extra ration during last 15 days of pregnancy as one of the major constraints.

12.22% respondents of Ranchi KVKs and 18.89% respondents of Lohardaga KVK respectively had expressed lack of knowledge about benefits of colostrums as a constraint.

Management

Table 2 reveals that 45.55 % respondents of Ranchi KVK and 38.89 % respondents of Lohardaga KVK respectively perceived lack of space as major impediment in providing shelter to goats. 9.99 % respondents of Ranchi KVK and 18.89 % respondents of Lohardaga KVK respectively believed that castration at young age result in ill health of goats.

Health Care

Table 2 reveals that 18.89 % respondents of Ranchi KVK and 12.22% respondents of Lohardaga KVK respectively perceived non availability of deworming medicine as a constraint. Table 2 shows that 32.22% respondents of Ranchi KVK and 41.11% respondents of Lohardaga KVK respectively had expressed lack of knowledge about dipping as a constraint. Lack of knowledge about spraying of sheds by 23.33 % respondents of Ranchi KVK and 47.78% respondents of Lohardaga KVK respectively had expressed as a constraint. 8.88 % respondents of Ranchi KVK and 33.33% respondents of Lohardaga KVK respectively had expressed non-availability of vaccine as a constraint.

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