Existing breeding and healthcare practices of cattle in tribals of Dungarpur district of Rajasthan

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ABSTRACT

A Field survey was conducted to study indigenous cow management practices followed by the tribal farmers of Dungarpur district by Rajasthan. It was found that a significantly higher percentage (90.00%) of responds resorted to natural service and only 2.50 percent adopted artificial insemination (A.I.). The postpartum breeding intervals in 11.25, 67.50, 8.75 and 12.50 percent cases were 2-3, 3-5, 5-6 and more than 6 months, respectively. The indigenous bull was available in only 30.00 percent cases. Majority of farmers (52.50%) followed pregnancy diagnosis. Only 27.50 percent respondents were following vaccination against contagious diseases. Majority of the respondents (83.75%) were benefited by animal health care service. Only 12.50 and 7.50 percent respondents were adopting deworming of adult animals and calves, respectively. Only 2.50 percent farmers adopted isolation of sick animals and 25 percent adopted tick control measure.

Key words : *Health management; Breeding; Cow; Tribal; Rajasthan.*

Farming is widely recognized as a hazardous occupation for all persons of all ages and the extent of animal related injury in the agricultural industry has been documented, Low et al (1996). Cow is occupies an important place in Indian dairy industry as well as rural Indian economy. Most of the reproductive problems are due to mismanagement of feeding and poor nutrition leads to, delayed, puberty, reduced conception rate (Fleck et at, 1980).

The net performance of domestic livestock is the result of the combined influence of all these factors. Advance made in management and technological procedures and adopted in most of the modern lives stock enterprises, have contributed enormously to make the livestock industry profitable, in several cases these attitudes have markedly influenced the health of animals and economy of lives stock form. It has been demonstrated in a study that there exists a close relationship between a livestock farmers personal characteristics, attitude and management practices and farm performance (Tarabla and Dodd, 1990) maintaining animals good health is essential to ensure high production. In developing countries, cows are an important source of Protein as well as income, but if not handled property they can cause loss to the handler.

The knowledge of various cows management practices followed by the farmers in tribal belt is of great importance as it may help in filling the gap between existing practices followed and the recommended scientific practices. Therefore this undertaken to document the existing breeding and health management practices being followed by the farmers under field condition.

METHODOLOGY

The study was conducted in adopted villages under Integrated village development programme (IVDP) at Krishi Vigyan Kendra, Dungarpur, A multi-stage stratified sampling procedure was adopted and for the selection of samples, two strata from Dungarpur district were taken which were, Dungarpur and Sagwara. These strata were selected purposefully since sufficient numbers of Indigenous cows are reared in these blocks. Four villages from each block were selected randomly and from each village, ten farmers were taken. Thus, 40 farmers from each block were selected. In all 80 farmers were interviewed with the help of interview schedule during the period August 2007 to December 2007. The data was analyzed in form of frequency, percentage , one-way ANOVA and 't' test.

RESULTS AND DISCUSSION

Animal Health Care Service : The perusal of the results revealed that animal health care service (Table 1) either in the form of veterinary hospital; dispensary or stockman centers were available in majority (83.75%) of the cases. Majority (52.50%) of respondents were getting treated their sick animals by veterinarians but still quite a large percentage (18.75%) was going to quacks. Regarding Prophylactic measures, only 27.50 percent of respondent were going for vaccination against the contagious diseases prevalent such as foot and mouth disease (FMD), Hemorrhagic septicemia (HS) and Black quarter (BQ). This finding is in contradiction to Dutt et al. (2003). Only a few (12.50%) respondents were adopting deworming of adult animals and 7.50 percent tribals dewormed calves. Lower adoption of deworming may be attributed to their poor knowledge about the harm caused by endo-parasites in animal.

Table 1. Health Management Practices adopted by the respondent

S. No.	Characteristics	Respondents	
		Number	Percent
1.	Availability of Animal Health care services	67	83.75
2.	Who treats sick animals		
	(a) Veterinarian	42	52.50
	(b) Veterinarian pharmacist	10	12.50
	(c) Self	13	16.25
	(d) Local / quack	15	18.75
3.	Prophylactic measure practiced	22	27.50
4.	Deworming of adult animals	10	12.50
5.	Deworming of calves	6	7.50
6.	Isolation of sick animals	2	2.50
7.	Disinfections of animal sheds	Nil	Nil
8.	Control of lice/ticks	20	25.00
9.	Pregnant animal special management	2	2.50
10.	Types of feed offered immediately after calving		
	(a) Porridge (Daliya)	50	62.50
	(c) Luke warm water	15	18.75
	(d) Maize/Wheat and 'Gur'	15	18.75
11.	Disposal of Placenta		
	(a) Buried in soil	45	56.25
	(b) Buried in garbage	5	6.25
	(c) Thrown away	30	37.50

The data regarding the isolation of sick animals indicates that only 2.50 percent of respondent isolated the sick animals. It was also observed that only 25.00 percent of respondents were adopting tick or lice control and majority did not. Similar observation was reported by Hazarika and Anand (1984)

It was noted that Majority of respondents (97.50%) did not adopt any special feeding for pregnant animals followed by 2.50 percent who fed more green folder in the last quarter of gestation. As for as type of feed given immediately after calving is concerned, majority of farmers were providing high energy feed to animals that may be in the from of porridge (62.50%), Luke warm water (18.75%) and wheat/maize and gur (18.75%). It was interesting to observe that 56.25 percent of tribals were buried placenta in soil followed by 37.50 percent who threw away, and 6.25 percent respondents buried in the garbage. The main purpose behind each of these practices probably was to dispose placenta, out of each of dogs or other animals.

Breeding Management Practices : It was observed from Table-2 that 90.00 percent of respondents resorted to natural service and only 2.50 percent were adopting artificial insemination (A.I.). Hence, adoption of A.I. especially in case of cow is very low under field condition. All the respondents were quite aware of the heat signs in one way or the other and method of heat detection used by the majority (55.00%) was 'Doka' along with bellowing and vaginal discharge as the main signs of heat in cows.

Table 2. Breeding Management Practices adopted by the respondent

S. No.	Characteristics/Categories	Respondents	
		Number	Percent
Breeding through Artificial Insemination		2	2.50
1.	Awareness of Heat symptoms	80	100.00
2.	Method of Heat Detection		
	(a) Bellowing and vaginal discharge	34	42.50
	(b) Use of bull	2	2.50
	(c) 'Doka' wish bellowing & Vaginal discharge	44	55.00
3.	Post partum Breeding Interval		
	(a) 2-3 Months	9	11.25
	(b) 3-5 Months	54	67.50
	(c) 5-6 Months	7	8.75
	(d) More than 6 month	10	12.50
4.	Bull Available in the village	8	10.00
5.	Pregnancy Diagnosis by Veterinarian	12	15.00
6.	Treatment of anoestrus	21	26.25

It was found that post partum breeding intervals in 11.25, 67.50 , 8.75 and 12.50 percent case were 2-3, 3-5, 5-6, and more than 6 months , respectively, as under field conditions, majority of farmers are not maintaining any sort of records. Age at first calving (AFC) and post-partum breeding interval can be considered as a good indicator for reproductive efficiency in cows. It was found

that average AFC in the study area was 44.32 months and average post partum breeding interval was 4.62 months. It was found that only in 10 percent cases, indigenous bull was available. So it is quite evident that most of the farmers were breeding with Gir or non-descript bull available around.

Pregnancy diagnosis (PD) is one of the important aspects of scientific management of dairy animals. In 55 percent cases, veterinarians were doing pregnancy diagnosis and 45.00 percent case were still going to quacks due to ignorance. Cows are generally considered as a problem breeder and anoestrus is quite common in them and 26.25 percent Tribal farmers were getting treatment of their animals by veterinarians.

CONCLUSION

It could be concluded from the present findings that the most of farmers were having quite satisfactory health management in term of use of vaccination and treatment of sick animals but still some gap was there as far as adoption of deworming, disinfections and isolation of sick animals. But the breeding management practices followed were not very good, they needed to be improved. Therefore, efforts should be made to educate the farmer and encourage them to adopt improved management practices. The cow keeper should be acquainted with these practices through organizing group meetings, training camps and deworming camps in the village to bridge the gap between existing and recommended practices.

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