

CATTLE MANAGEMENT - PREVAILING PRACTICES IN ARID WESTERN PLAIN ZONE OF RAJASTHAN

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Cattle rearing is constantly gaining momentum and contributing significantly towards the upliftment of the poorest among the poor. Development of animal husbandry is also envisaged in our national plans as an integral part of a sound system of diversified agriculture. India ranks first in the world with respect to cattle population as well as milk production. In spite of India's position as the highest producer of milk in the world, productivity per cattle is very poor viz., 800-900 kg/lactation which is much less than the world's average of 4000-7000 kg in European countries. This low productivity is due to the poor cattle management practices used by the cattle keepers specially in the field of health care and other management practices. In order to know specific aspects in which knowledge of cattle keepers is lacking, it is imperative to know the existing cattle management practices used by them. Keeping this view in mind the present study was undertaken with the specific objective.

To study the existing cattle management practices followed by the cattle keepers in the area of health care, housing and clean milk production.

METHODOLOGY

The study was undertaken in the Arid Western Plain zone of Rajasthan. Which includes Barmer and Jodhpur districts. Three tehsils from each district and three villages from each tehsil, having maximum cattle population were selected for the study. For selection of respondents, 5 respondents from each category (i.e. small, medium and large herd size owners) were selected randomly from each identified village. Thus, the total respondents included in the study were 270. Data

were collected with the help of pre-tested, reliable and valid questionnaire using personal interview technique.

RESULTS AND DISCUSSION

The existing management practices in cattle rearing in the study area have been discussed under the following heads :

I. HEALTH CARE :

It is better to prevent disease than to cure them. Therefore, proper health care of the cattle is most important. Health of cattle also affects the milk production.

Vaccination—The main contagious diseases known to the respondents and existing in study area were Foot and Mouth Disease (FMD), Haemorrhagic Septicaemia (HS) and Black Quarter (BQ). It was found that regular vaccination programmes against contagious diseases were never conducted in the study area. Similarly there was also lack of timely veterinary facility due to which the respondents used their local means of eradication for the illness. For the cure of FMD and HS they use to rub Tili oil (sesame oil). For Black Quarter the cattle keepers of the area had their own treatment. They punch the ear of cow till the black blood is coming out and red coloured blood starts coming. It was found that only 6.30 to 7.78 per cent respondents used regular vaccination against FMD, BQ and HS as they were residing near the city and hence could avail the facility.

Care of sick animals—Whenever animal fall sick and ailment is not severe, about 90 per cent of the respondents treated the animals either themselves (59.63%) or by village Guni (30.74%) and rarely took the help of veterinarians except in

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extreme cases of illness. The reason being that in the grass the mosquitoes were at a very long distance and due to lack of transportation facilities it was difficult to approach the doctor or get treated person.

Table 1 Existing cattle management practices of cattle keepers regarding health care

No.	Existing practice	Frequency	Percentage
1	Nevertending again:		
(a)	100%	10	100%
(b)	90%	1	10%
(c)	80%	1	10%
2	Use of dry periods:		
(a)	3 days (Bharatpur)	10	100%
(b)	1 day or 2 days (Muz)	1	10%
(c)	3 days (Chhapra)	1	10%
	(1) period after a given treatment is taken in the morning		
3	Control against		
external parasites:			
(a)	Use of DDT powder	10	100%
(b)	Use of sulphur	1	10%
(c)	Use of turmeric oil of turmeric	1	10%
(d)	Use of turmeric oil of turmeric	1	10%
(e)	Use of turmeric oil of turmeric	1	10%

Control against external parasites: The major existing practices against eradication of external parasites of cattle were use of turmeric with oil of turmeric and use of DDT powder. Findings in Table 1 show that 10 per cent of the respondents utilized turmeric mixed with oil of turmeric. A 77 per cent utilized DDT powder and the remaining were mixed with turmeric. 10 per cent respondents were unaware of disease. 10 per cent cattle owners applied spirit of phenyl and only 10 per cent of the respondents administered turmeric as suggested by veterinary school health person.

The practice followed by almost all the respondents to provide an insecticide free house of the animals was to clean animal's skin by burning the leaves of the farm wastes, straw and harvested crop plant material. They also used hand-picking method to pull out the ticks.

11. Housing and other management practices:

Effective housing for cattle stock is regarded to meet the requirements to maintain a health

and control of the animals. Cattle have a high degree of tolerance to cold and thrive in very low temperatures if they are kept dry and free from exposure to direct wind currents. Clean, dry and sanitary surroundings are necessary for control of disease and for the production of quantity milk.

Types of housing (hatched mud or kucha) house for animals was the most prevailing practice followed by 100 per cent of the respondents. About 10 per cent respondents were having the yards shed for their animals but they were large farmers having large land holding and herd size. The cattle owners having very large herd size (e.g. 100 or more) cattle have not provided sheds for all the cattle except that for young calves or sick animals. There were large number of kucha (mud) sheds which animals were kept for protection during bright scorching heat and rains (rarely happen). During winters, use covering was provided to some of the ill and weak cattle.

Cattle shed specifications: Maintaining sanitary conditions in the cattle shed is important to prevent the animal from internal as well as external parasites.

Regarding the arrangements made in the cattle shed it was found that in most of the cases floor of the shed was sloppy which facilitate the drainage of urine, water and other waste. Few of them have made shed with arrangement for collection of urine in which the pot is placed below the ground level in a small pit. The mouth of the pot is covered with a lid or plastered with mud and turmeric. Construction of a manger in a cattle shed is also important to prevent the fodder wastage. However, it was observed that 10 respondents out of 170 had mangers in the cattle shed. Some of them (22.94%) were using kucha (mud) for the purpose.

Wall plaster in frequency: of cleaning the shed. It was found that all the respondents cleaning the shed (100%).

Use of animal waste: Table 2 shows that majority (72.94%) of the respondents utilized the animal dung for making fire cakes. 25.70 per cent respondents used it for plastering the walls and floor of the house and 17.35 per cent have utilized the dung for making manure. The urine was let to drain off to the soil or was allowed to seep. A

peculiar indigenous practice of spraying cow's urine over stored bajra grains was observed (4.07%). The women reported that it saves the grain from insect infestation.

Table 2. Existing cattle management practices of cattle keepers regarding housing and other management practices.

S. No.	Existing practices	Frequency	Percentage
1.	Types of house		
	(a) Kuchha/Thatched mud house	182	67.41
	(b) Pucca shed	42	15.56
	(c) Under trees/open yard	46	17.04
2.	Cattle shed specification		
	(a) Sloppy floor	187	69.26
	(b) Manger	11	4.07
3.	Frequency of cleaning cattle shed		
	(a) Daily	270	100.00
	(b) Alternatively	-	-
	(c) Weekly	-	-
4.	Use of animal waste		
	(a) Used as fire cakes	169	62.59
	(b) Plastering house	64	23.70
	(c) Used as manure	182	67.41
	(d) Urine sprayed on bajra or other crops	11	4.07
5.	Disposing body of dead animals		
	(a) Burnt	-	-
	(b) Buried	22	8.15
	(c) Left to decay outside village	165	61.11
	(d) Handed over to Harijan	83	30.74
6.	Identification of cattle		
	(a) Ear tag	12	4.44
	(b) Tattooing	9	3.33
	(c) Metal tag	-	-
	(d) Branding	10	3.70
7.	Types of records maintained		
	(a) Milk record	6	2.22
	(b) Cattle feed record	1	0.37
	(c) Breeding record	-	-
	(d) Pedigree sheet	-	-
	(e) Health record	-	-

Disposing body of dead animals—Proper disposal of carcass is important to maintain hygienic conditions in the area. Results of the study revealed that dead bodies of animals were at times handed over to Harijan on payment basis by

30.74 per cent of the respondents. Only 8.15 per cent respondents buried the dead body of animals in the field away from home premises. Most of the times (61.11%) it was left outside the village premises to decay automatically.

Identification of cattle—It was found that only those cattle keepers who have purchased the cattle on loan basis were using the identification mark viz., ear tagging, tattooing and branding for identification of their cattle.

Types of records maintained—Findings in Table 2 show that only 6 respondents were keeping milk record and 1 respondent was maintaining the cattle feed record. Otherwise no record was maintained by any of the respondent i.e. breeding record, pedigree sheet, health record etc.

III. Clean Milk Production :

Better milking practices and production of clean, wholesome milk bring better prices and also tend to increase consumption. The essential requisites for clean milk production are healthy and clean animal, clean milker, clean utensils and clean bran.

Method of milking—Different methods followed by respondents to milk the milch animals were full hand method, thumb method and stripping method. Amongst these three methods, the most prevailing method was thumb method/ knuckle method, which was practised by 91.11 per cent respondents, followed by stripping method, which was practised by 5.56 per cent respondents. Full hand method was the least popular method of milking as only 3.33 per cent respondents were practising this method of milking though, it is the only right method of milking.

Sanitary precautions—Table 3 shows that all precautions were taken while milking the cows i.e. respondents washed their hands, udder and teats of the cow. Usually buckets were used for milking and were washed by all the respondents before milking. Though the milk was not strained during milking but was strained before bringing it to use by majority of the respondents (83.70%).

Period to stop a cow milking before calving—Findings in Table 3 show that majority (60.00%) of the respondents were following the recommended

Table 3. Existing cattle management practices of cattle keepers regarding clean milk production.

S. No.	Existing practices	Frequency	Percentage
1.	Method of milking		
	(a) Full hand method	9	3.33
	(b) Thumb method	246	91.11
	(c) Stripping method	15	5.56
2.	Sanitary precautions		
	(a) Washing hands	270	100.00
	(b) Washing udder and teats	270	100.00
	(c) Washing buckets before milking	270	100.00
	(d) Use of strainer	226	83.70
3.	Period to stop a cow milking before calving		
	(a) Continue till next lactation	31	11.48
	(b) Stop 2 months before calving	162	60.00
	(c) Stop 1 month before calving	77	28.52

practice of drying off of cows 2 months before calving. Around 28.00 per cent respondents were keeping their animals in dry condition for only 1

month before calving. The remaining 11.48 per cent of the respondents continue to milk a cow till it is lactating, which adversely affects the growth of the foetus.

CONCLUSION

On the basis of finding it could be concluded that in most of the aspects viz. care of sick animal, control of external parasites, vaccination against FMD, HS and BQ, disposal of carcass, method of milking etc. the cattle keepers have not adopted the scientific practices. The main reason behind this was lack of knowledge coupled with poor infrastructure facilities in/near villages. In order to overcome these problem intensive efforts should be made by the extension scientists to motivate cattle keepers for adoption of scientific practices through educational means viz. organisation of trainings, awareness camps, use of mass media etc. At the same time veterinary facilities should be provided by trained veterinarian. The rural youth should be trained regarding first-aid treatment of animals.

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