

Traditional Livestock Husbandry Knowledge in Tamil Nadu¹

A Manivannan, P Mathialagan, and N Narmatha

Directorate of Distance Education, Tamil Nadu Veterinary and Animal Sciences University, Chennai 600051, Tamil Nadu, India (email: mani7priya@rediffmail.com)

Abstract

Livestock rearing is an age-old occupation for millions of rural people in India. Before the introduction of scientific husbandry practices in livestock rearing, livestock owners relied on the experience and guidance of the elderly people. Traditional medicine for treatment of various ailments of animals also existed for a very long time in the country and surplus references are available on this account. On the other hand, documents describing the traditional livestock husbandry knowledge are limited. Hence this study was undertaken to ascertain the livestock related traditional knowledge/beliefs found among the farmers in Tamil Nadu, India. The sample for the study consisted of 100 respondents selected by using proportionate random sampling method. Of these, 50 cattle farmers and 50 buffalo farmers belonging to three villages each in Viluppuram and Namakkal districts of Tamil Nadu were selected. The results revealed that out of the 21 listed items related to livestock rearing, 14 traditional practices/beliefs were known to all the respondents (100 per cent) and the rest of the items were known to majority of the respondents in both categories of farmers. It shows that the respondent livestock farmers in the study area had good knowledge about the traditional livestock husbandry practices/beliefs.

Before the advent of many scientific interventions in livestock rearing, traditional knowledge that was prevalent for many years contributed extensively to livestock development. Wang (1988) defined indigenous knowledge as a sum total of knowledge and practices which are based on people's accumulated experience in dealing with situations and problems in various aspects of life and such knowledge and practices are special to particular knowledge. Indigenous technical knowledge (ITK) may be old, but it need not be outdated. In fact,

it can very well be compared with modern practices in a number of situations. ITK is farmer oriented and evolved by the farmers. It is also compatible with the local situation and easy to adopt, being often less dependent on the use of external inputs (Rao *et al.*, 1995).

The unique aspect of traditional knowledge systems is that it differs with region to region and area to area. This traditional knowledge (or medicine or practices) that emerged primarily based on the experience of elderly

1. Part of the PhD thesis submitted by the first author to Tamil Nadu Veterinary and Animal Sciences University, Chennai, Tamil Nadu, India.

people was later transmitted selectively to the members of successive families. In this regard, ample evidences like documents, treatises, literature, etc. are available about the use of traditional medicine by local healers in treating the ailments of various diseases of man and animals.

On the contrary, only limited literature is presently available about the traditional management practices or beliefs followed by livestock owners. For example, Rigveda is replete with references to cattle and their management, viz., grazing of livestock, provision of succulent green fodder and water to drink from clean ponds, and livestock barns (Nene and Sadhale, 1997). "Arthashastra", the treatise on science of political administration, composed by Kautilya, serves as an important guide on the care and management of elephants, horses, and cows even today (Somvanshi, 2006). Under these circumstances, it was planned to ascertain the traditional knowledge or beliefs found among the livestock farmers regarding the rearing of animals as part of the study on livestock farming systems in Tamil Nadu in South India.

Materials and methods

A multistage sampling procedure was adopted for the selection of respondents in Tamil Nadu. Initially, the districts and blocks were identified based on the maximum number of cattle/buffaloes available in the area. In total, 100 respondents were selected by using proportionate random sampling technique. The sample consisted of 50 cattle farmers identified from three villages, viz., Pakkam, R.R.Kulam, and

R.Pakkam in Kandamangalam block of Viluppuram district and 50 buffalo farmers from three villages, viz., Oruvanthurpudhur, Ayyakalpudhur, and Odakattur in Mohanur block of Namakkal district in Tamil Nadu. A teacher-made test was developed based on the related literature available and discussion with researchers to measure the knowledge on traditional livestock husbandry practices/beliefs. The data were collected in 2008 through a well structured and pre-tested interview schedule by the researcher.

Results and discussion

Of 21 items listed, fourteen traditional practices/beliefs related to livestock rearing were known to all the respondents (100%) in the study areas as detailed below (see Table 1).

Not selling the animals on Wednesday/Friday.

Many farmers are of the opinion that as cow is considered a form of Goddess Lakshmi/Wealth, sale of cow on an auspicious day like Friday or Wednesday would result in selling the prosperity of the whole family itself. Hence this belief is universally found among the cattle owners. Somvanshi (2006) also reported similarly.

Death of a cow/buffalo bad for family. Death of the animal is considered to be a bad sign for the family's welfare.

Feeding kitchen waste. Generally farmers have the habit of feeding the cattle with the available kitchen waste, which is considered as a low-cost feeding method. The kitchen waste mainly consists of leftover rice and mixture of cooked vegetables.

Table 1. Knowledge level of respondents on traditional dairy farming practices/ beliefs.

Traditional practices/beliefs	Cattle farmers (n=50)		Buffalo farmers (n=50)	
	No.	%	No.	%
Not feeding colostrum to calves immediately	35	70	36	72
Tying placenta on trees	32	64	42	84
Occurrence of estrus signs in cows/buffaloes during <i>ammavasai/ pournami</i>	45	90	50	100
Not selling the animals on Wednesday/Friday	50	100	50	100
Cow should not calve on Sunday	36	72	50	100
Purchase of cows based on whirls	29	49	41	82
Purchase of cows based on colors	31	62	41	82
Death of a cow/buffalo bad for family	50	100	50	100
Feeding kitchen waste	50	100	50	100
Feeding gruel with jaggery to newly calved cows/buffaloes	50	100	50	100
Not weaning the calf up to 5–6 months of age	50	100	50	100
Discarding the first few strips of milk while milking	50	100	50	100
Using locally available material for cattle shed	50	100	50	100
Fumigating camphor smoke twice a week in cattle shed	50	100	50	100
Storing paddy straw for long-term use	50	100	50	100
Identification of age of cattle by teeth	50	100	50	100
Using cow dung as plastering material for mud floor	50	100	50	100
Retaining the head/nose rope of the cow while selling the animal	50	100	50	100
Using cattle dung and urine as manure	50	100	50	100
Not cutting the umbilical cord of newborn calf	50	100	50	100
Using mouth cover for calves	39	78	25	50

Feeding gruel with jaggery to newly calved cows/buffaloes. The practice of feeding a mixture of *cumbu* or *ragi* (finger millet) gruel along with jaggery to newly calved cow is believed to act as a laxative diet which will aid in expelling the waste from the body of the newly calved animal and also aid in expelling the placental

membrane. Similar practice was reported by Kumar (2000).

Not weaning the calf up to 5–6 months of age. Scientific husbandry practices advocate even “zero” day weaning for calves so as to place better attention on the calves. But in actual field condition, the calves are allowed

to stay with the mother up to 6 months or even for a longer period.

Discarding the first few strips of milk while milking. It is a good practice since the first few strips of milk contains heavy load of microbes which is harmful to health. Farmers knowingly or unknowingly follow the practice of discarding the first few strips of milk while milking.

Using locally available material for cattle shed. Since the local materials are cheap and also provide sufficient protection to the animals, they are commonly used. Rao *et al.* (1995) also reported similarly.

Fumigating camphor or incense smoke twice a week in cattle shed. Farmers feel that the camphor/incense smoke will drive out evil forces and other disease causing agents from the cattle shed. Similar observation was also made by Bedekar (1993).

Storing paddy straw for long-term use. This practice is commonly found in almost all areas of Tamil Nadu. Paddy straw being the main dry fodder fed to cattle throughout the year, it is preserved for future use.

Identification of age of cattle by teeth. By experience, this is being practiced by many middlemen who are involved in selling and buying of livestock.

Indigenous technical knowledge (ITK) may be old, but it need not be outdated. In fact, it can very well be compared with modern practices in a number of situations.

Using cow dung as plastering material for mud floor. In rural areas, it is a routine practice to apply cow dung paste on the floor, as it is considered to ward off ill effects.

Retaining the head/nose rope of the cow while selling the animal. Farmers attribute sentiment and emotional reasons for this practice (Fig. 1). The purchaser will put new head/nose rope for the animal and after that only he will take the animals to his place.

Using cattle dung and urine as manure. The livestock waste (dung and urine) is commonly used as organic manure. This has been a common agricultural practice for many years.

Not cutting the umbilical cord of newborn calf. The umbilical cord of the newborn calf is left as such and covered with a white cloth to protect against injury.



Figure 1. A woman farmer rearing dairy cows in open yard having the animals tied with head and nose rope.

A multistage sampling procedure was adopted for the selection of respondents in Tamil Nadu. Initially, the districts and blocks were identified based on the maximum number of cattle/buffaloes available in the area.

The following practices/beliefs were known to majority of the respondents in the study areas.

Occurrence of estrus signs in cows/buffaloes during *ammavasai/pournami*. Cows/buffaloes show estrus signs once in 16–21 days due to physiological mechanism. But farmers mainly look for estrus signs only during *ammavasai* (no moon day) or *pournami* (full moon day) and bring more number of animals for artificial insemination in veterinary dispensaries. The exact mechanism of higher number of animals showing estrus signs during *ammavasai* or *pournami* needs to be explored by the concerned researchers.

Cow should not calve on Sunday. By custom, a cow calving on Sunday is not considered auspicious for farmers.

Scientific husbandry practices advocate even “zero” day weaning for calves so as to place better attention on the calves. But in actual field condition, the calves are allowed to stay with the mother up to 6 months or even for a longer period.

Not feeding colostrum to calves immediately.

Farmers generally take some quantity of colostrum for their own use and sell the rest. It shows that many of them were not aware of feeding colostrum to young calves.

Tying/hanging placental bundles on trees.

Gunny bags are commonly seen hanging on banyan trees on the outskirts of villages in Tamil Nadu. The expelled placental waste of newly calved cow/buffalo is put in a gunny bag and tied/hanged on big banyan trees. The farmers believe that if the placental waste is hanged on latex-producing trees, the cow/buffalo would give more milk.

Purchase of cows based on whirls. The position and number of whirls (locally called *sushi*) in the body of cattle play a role in the selection of cows. The book titled “*Mattu Vagadam*” published by Saraswathi Mahal Library, Thanjavur, Tamil Nadu also contains good number of references about care and management of cattle apart from information on traditional medicines used for treatment of various ailments in animals. It also lists about 26 types of whirls found in the body of cattle based on which animals were purchased by the farmers for various purposes as a traditional belief (Krishnasamy Madik Rao Saheb, 1950).

Purchase of cows based on colors. The farmers still feel that cows with certain color, viz., gray/brown (local slang – *kari/kabilum*) are good milk yielders. Hence such cows are sold at higher prices.

Using mouth cover for calves. The mouth of a young calf is covered or protected so that it will not lick mud floor and eat unwanted materials resulting in digestive disturbances.

Farmers generally take some quantity of colostrum for their own use and sell the rest. It shows that many of them were not aware of feeding colostrum to young calves.

Conclusion

An attempt has been made to document the various traditional/indigenous livestock husbandry practices/beliefs existing in some parts of Tamil Nadu and the results indicate that the respondent livestock farmers had good knowledge about such practices/beliefs. The traditional/indigenous practices/beliefs need not be discarded as outdated; after all, these were evolved over a period of time through experience and trial and error by our forefathers. In this context, more exploration by concerned researchers is certainly warranted in these areas to find out the exact reason which prompted the people to follow such practices.

Acknowledgment

The authors are grateful to all the respondent farmers of the study for providing vital inputs about livestock related indigenous practices/beliefs which are present in their areas.

References

- Bedekar VV.** 1993. Agriculture in Ancient India. Itihas Patrika Prakashan, Thane, India. 212 pp.
- Krishnasamy Madik Rao Saheb A.** 1950. Sarabendra Treatment Methods – Cattle, Horses, Poultry – Their Appearance and Treatment. (In Tamil.) Thanjavur Maharaja Saraboji's Saraswathi Mahal Library Publication No. 11. Saraswathi Mahal Library, Thanjavur, Tamil Nadu, India. pp. 23–28.
- Kumar P.** (Ed.) 2000. Native Traditional Wisdom for Livestock Management. Technical Bulletin. NAARM, Hyderabad, India.
- Nene YL and Sadhale Nalini.** 1997. Agriculture and biology in Rigveda. Asian Agri-History 1(3):177–190.
- Rao SVN, Van Den Ban AW, Rangnekar DV, and Ranganathan K.** 1995. Indigenous technical knowledge and livestock. In: Handbook for Straw Feeding Systems (Kiran Singh and Schiere JB, eds.). ICAR, New Delhi, India. pp. 119–128.
- Somvanshi R.** 2006. Veterinary medicine and animal keeping in ancient India. Asian Agri-History 10(2):133–146.
- Wang G.** 1988. Indigenous communication systems in research and development. Journal of Extension Systems 4(2):75–86.