



Management of young animals and perceived constraints in rearing livestock in dryland areas of Tamil Nadu

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India accounts for amongst the largest livestock population (530 M) in the world (18th Livestock Census 2007). The country possesses 14.59% of goat and 6.03% of world sheep population, ranking second in goat and fifth in sheep population (FAO 2009). Ganeche *et al.* (2000) showed that the living standard of the dryland farmers could be improved by adopting different intensive farming system such as crop husbandry integrated with animals, poultry components and silvi-pastoral systems. In Tamil Nadu, the small, medium and large farmers possess all species of livestock and moreover large farmers followed by small farmers rear the small ruminants (Anonymous 1989, Survey report, MVC-Chennai). Management of young animals is one the most important issues in livestock farming. If these young animals at birth can be scientifically managed then only they can provide high production when matured. The study was conducted in purposively selected Dharmapuri district of Tamil Nadu where livestock population was high, since it ranked first among district that fall under the north-western zone of dryland areas. Pennagram block was purposively selected, as the block is one of the two blocks that receives lowest rainfall in the district.

Pikkili village was selected randomly from the Pennagram block. A total of 100 livestock owners from 4 categories, i.e. large, small, marginal and landless farmers were selected through proportionate random sampling method. The study showed that, out of 100 randomly selected livestock owners 63 were rearing large animals and rest 37 were rearing small ruminants. Among 37 respondent rearing small ruminants, all were rearing sheep while 25 respondents were also rearing goat along with sheep.

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Management practices of young animals

Cent percent dairy owners fed colostrum to their calf. Majority (79.36%) of them were cleaning mucous from mouth and nostril of the calf after its birth, while only 40% dairy owners provided bedding material such as gunny bags, straw material etc. for the young calves. Invariably all the dairy owners followed the practice of deworming their calves. The respondents reported that they had consulted with the veterinary officers about the type of deworming drug to be procured either from the dispensary or purchased from the pharmacy. This shows that the respondents were well aware of the importance of deworming the calves. Dehorning of the calves was practiced by only 4.76% of the respondents, mainly who were rearing crossbreed cattle. Castration of male calves was also not practiced by majority of the dairy owners. Only 15 of the respondents castrated their male calves. The reason was that the respondents in this region used to sell their calves within 3 months of age as they utilize the dry animals for ploughing the field and there appears no compulsion for the respondents to rear male calves.

Lamb pen was provided by nearly 45% of the sheep owners. The respondents provided a big portable bamboo basket with *palmirah* leaves or with other leaves on the top for housing the lamb till grazing. Cent percent sheep owners followed the practice of cleaning of mucous over the body of newborn lambs. All the respondents practiced colostrum feeding to the lamb by allowing them to stay with the dam for 2–3 days. Again, cent percent sheep owners were also found to follow the practice of deworming their lambs. Bedding materials for newborn lambs was provided by only 43% of the respondents in the dryland areas. Dry leaves, paddy straw and jute bags were the commonly used bedding material for the new born lambs. In fact, in total the care of new born lambs was good in the study area, which is essential since, nearly 20% of lambs die before weaning; 80% of those losses occur during the first 10 days. Good new born lamb care can significantly increase the number of lambs raised by ewes in the flock (Schoenian 2011).

Majority of the respondents did not provide kid pen. Only

40% of the goat owners were providing kid pen made of bamboo baskets for shelter. Cent percent sheep owners followed the practice of cleaning of the mucous over the body of the newborn kids. Kumar (2002) also reported that all the resource poor farmers of Mirzapur district of Uttar Pradesh provided colostrum to their young kids and cleaned mucous from nostril and mouth immediately after birth. The kids were allowed to stay with the dam so as to suckle the colostrums for 2–3 days. Research has reported that in grazing conditions, goats are usually more severely infected than sheep, this being probably related to their lower ability to develop an immune response against the nematodes (Hoste *et al.* 2007) and therefore deworming is essential. Although in the study area cent percent goat owners were following the practice of deworming their kid. Although, a similar study conducted in Ramnad district of Tamil Nadu revealed that 48% and 22% of the respondents only followed deworming and deticking practices (Balakrishnan 1994). Further, a study in Rajasthan reported that 63.33% goat rearers from among the large flock holder, practiced deworming twice in a year while 9.17% of medium goat flock holder practiced deworming once in a year (Sharma 2005). A similar study in the ravine region of Uttar Pradesh revealed high incidence of gastrointestinal parasites in the goats, still none of the goat owners in the area was practicing regular deworming, although occasional deworming with indigenous drugs was practiced by them (Rashmi 2010). Researchers have revealed that indigenous drug such as garlic barrier is also effective for controlling internal parasites, especially in sheep (Garlic Barrier 2011). Majority of the goat owners in study area did not provide bedding materials for newborn kid. Only 32% goat owners in the dryland areas provide bedding material with dry leaves, paddy straw and jute bags.

Perceived constraints in livestock rearing

Major constraints as experienced by the cattle and buffalo owners was water scarcity, lack of veterinary aid, (Veterinary dispensary is located far off), lack of green fodder availability, high feed cost, high disease incidence, low productivity, reproductive disorder and lack of credit availability. The cattle and buffalo owners in the area mostly depend upon the local healers for getting their animals treated. The availability of green fodder was scarce in the area and the farmers were unable to provide sufficient nutrition supplement to their animals which accounted for the low productivity and reproductive disorders. This was in line with the findings of Venkatasubramanian and Fulzele (1996), who reported that

inadequate green fodder was the second major feeding constraint experienced by the farmers from northern part of Tamil Nadu.

Major constraints as experienced by the farmers in rearing sheep and goat were water scarcity, lack of grazing land, lack of veterinary aid, disease occurrence, less remunerative price for the products and lack of credit availability. Similar finding have been reported by other researchers (Tudu 2003 and Rashmi 2010)) wherein they found similar constraints for goat rearing in the dryland areas of other states also.

SUMMARY

The study revealed that livestock owners in the dryland areas of Tamil Nadu are following most of the scientific recommended practices for care of young animals (calves, lambs and kids) and are taking good care of them although they are facing a lot of constraints apart from the hardship of the dryland areas. Their major problems include lack of grazing land, availability of green fodder, lack of credit availability and poor veterinary care etc. needs to be removed to boost the livestock rearing, which is a very important livelihood source in the drylands.

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