



*Original Research*

## Housing and Feeding Management Practices Followed by Adopted and Non-adopted Goat Farmers under Adopted Villages of Assam, India

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### Abstract

The present investigation was conducted to study the housing and feeding management practices followed by adopted and non-adopted goat farmers in three rural village's viz. Nahira, Tepesia and Tetelia adopted by "All India Co-ordinated Research Project (AICRP) on Goat Improvement", Goat Research Station, Assam Agricultural University, Byrnihut, Guwahati. A total of one hundred and five goat farmers adopted under the project and another one hundred and five non-adopted goat farmers from the adopted villages were selected randomly for collection of data. The total sample size was 210. It was observed that 91.43 and 78.10 per cent of adopted and non-adopted goat farmers respectively had separate goat sheds, 87.62 and 72.38 per cent, respectively had closed type of houses, 68.57 and 66.67 per cent, respectively used corrugated iron sheets as roof material, 28.57 and 80.95 per cent, respectively had earthen floor sheds. The common feeding practice of majority of adopted (54.29%) and non-adopted (84.76%) goat farmers were browsing and grazing while 45.71 and 15.24 per cent of adopted and non-adopted goat farmers respectively provided concentrates along with browsing and grazing. An average 85.71 and 56.19 per cent of adopted and non-adopted farmers respectively provided salt to their animals. To conclude management practices namely housing, feeding, health care, breeding and mortality of Assam hill goats were better in adopted goat farmers than in non-adopted goat farmers.

**Key words:** Assam, Adopted, Goat, Management Practices, Non-adopted

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## Introduction

The Assam hill goat, a native goat of Assam is one of the hardiest breed reared mostly for meat purpose and rarely milked. They possess some good quality traits like high prolificacy and are also highly adaptable to the local high humid agro-climatic condition of Assam. The management practices followed by the goat farmers are different from region to region (Sabapara *et al.*, 2010). Collection of information regarding the housing and feeding management practices followed by the adopted and non-adopted goat farmers is necessary to identify the strengths and weaknesses of the system, evaluate the effect of adoption of scientific knowledge by the adopted farmers and to evolve suitable measures to improve the production of this valuable animal of Assam. Keeping the above facts in view the present study was undertaken to investigate the housing and feeding management practices followed by the goat farmers.

## Materials and Methods

A total of thirty five goat farmers adopted under AICRP on goat improvement, GRS, Byrnihut, and another thirty five non-adopted goat farmers from each adopted village's *viz.* Nahira, Tepesia and Tetelia were selected randomly for collection of data. Relevant information required were collected from available records and direct personal investigation method using pre-tested structured survey schedule designed for the purpose. Data were analyzed using SAS 9.4.

## Results and Discussion

Goat sheds in the study areas were located mostly on plain areas more particularly close to the house of the owner which were either closed or open with poor ventilation and drainage. Cleaning of goat sheds were performed daily mostly by women. The goat farmers in the study area housed kids, male and female goats together. The study revealed that 91.43 per cent of adopted and 78.10 per cent of non-adopted goat farmers constructed separate goat sheds for housing their animals, while 8.57 per cent of adopted and 21.90 per cent of non-adopted goat farmers housed their goats in human dwellings. The above findings in respect of non-adopted goat farmers was in close agreement with the findings of Sharma *et al.* (2007) who reported that 82 per cent of goat farmers in certain areas of Rajasthan housed their goats attached to their own residential house. On the contrary to this finding Rai *et al.* (2013) reported that 76 per cent of goat farmers provided no separate housing and housed their goats in human dwellings.

In the present study it was observed that open type of housing system was followed by 12.38 per cent of adopted and 27.62 per cent of non-adopted goat farmers however, 87.62 per cent of adopted and 72.38 per cent of non-adopted goat farmers had closed type of houses with its boundaries covered with locally available materials like bamboo, wood and cut branches of thorny bushes. Sharma *et al.* (2007) reported a higher per cent of open (82%) goat houses in rural areas of Rajasthan than the present findings. Roof of goat sheds in the study area were constructed by using materials like thatch, bamboo or corrugated iron (CI)

sheets. Majority (68.57%) of the adopted and non-adopted goat farmers (66.67%) used corrugated iron sheets as roof material while 31.43 per cent of adopted and 33.33 per cent of non-adopted goat farmers used thatch as roofing material for the goat sheds. On the contrary to this finding, Tanwar and Rohilla (2012) reported a higher percentage (92.08) of farmers using thatch roof in Jaipur district of Rajasthan. An average of 28.57, 40 and 31.43 per cent of adopted goat farmers had earthen (un-raised), wooden planks (raised) and bamboo rail (raised) floors respectively, whereas the corresponding values were found to be 79.05, 16.19 and 4.76 per cent in non-adopted goat farmers. The result obtained in the present study in respect of the type of floor of non-adopted goat farmers were in close agreement with the result of Sakthivel *et al.* (2012) who stated that 71.43 per cent of goat farmers had goat sheds with mud floor. An increase in the adoption of improvised flooring material in goat sheds of adopted farmers was observed which might be due to technical awareness regarding proper housing required for goats to improve productivity.

Goats in the study area were usually let loose for open grazing during day time. Normally 5-8 hours of grazing were allowed to the animals. Concentrate feeds were provided by some farmers during periods when the animals were not allowed for grazing due to cultivation of crops. Extra fodders were not provided to the animals except during rainy days when leaves of kathal (*Artocarpus heterophyllus*), aahat (*Ficus religiosa*), banana (*Musa paradisiacal*), neem (*Azadirachta indica*) were given to the animals. The vegetable wastes like leaves of cauliflower, cabbage were also provided to the goats when it was available in abundance.

The present study revealed that the common feeding practice of majority of adopted (54.29%) and non-adopted (84.76%) goat farmers were browsing and grazing while 45.71 per cent of adopted and 15.24 per cent of non-adopted goat farmers provided their animals with concentrates along with browsing and grazing. Gupta *et al.* (2011) reported that majority of goat farmers (72%) practiced only grazing, while 27.37 per cent farmers supplemented their animals with concentrates. Jana *et al.* (2014) also reported that more than half of the goat farmers (51.33%) in Burdwan district of West Bengal maintained their goats by daily allowance of 4-6 hours grazing. In the present study it was observed that a higher percentage of adopted goat farmers (85.71%) provided salt to their animals than non-adopted goat farmers (56.19%). On the other hand 14.29 per cent of adopted goat farmers and 43.81 per cent of non-adopted goat farmers did not provide salt to their goats. Gurjar *et al.* (2008) reported that 69 per cent of the goat farmers in Mewar region of Southern Rajasthan provided common salt to their animals which was lower than the percentage observed in adopted goat farmers and higher than the percentage recorded in non-adopted goat farmers. A higher percentage of adopted goat farmers provided concentrates and common salt to their goats than non-adopted farmers which might be due to awareness of the adopted farmers about the importance of concentrates and salt feeding practice in attaining good growth and early maturity.



## Conclusion

The study has concluded that more number of adopted goat farmers followed scientific housing and feeding practices than the non-adopted goat farmers which was due to technical awareness provided to the adopted goat farmers regarding housing and feeding required for goats to improve productivity.

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