

MORPHOLOGICAL CHARACTERISTICS OF VIZIANAGARAM GOATS*

B. PRADEEP NAIDU ; S.JAGADEESWARA RAO¹ ; R. M. V. PRASAD² AND A. ANITHA³
N.T.R College of Veterinary Science, Gannavaram, 521 102, India

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ABSTRACT

In a field study covering 240 farmers spread over 80 villages in 16 mandals, data were collected on the morphological characteristics of local goats in Vizianagaram district of Andhra Pradesh. The predominant coat colour was bicolour (48.64%), followed by single colour (44.22%) and multi colour (7.14%). The bicolour pattern consisted of mainly black and white whereas, single coat colour pattern consisted of mainly black followed by white colour. The head profile of majority of local goats was straight (80.18%), followed by slightly convex (19.82%). Most of the goats (99.28%) had pendulous ears. Majority of goats (68.38%) did not have beard. Wattles were present in 50.88 per cent of goats and were present in both sexes. Both the sexes were horned (91.65%), but few were polled (8.35%).

Key words : Goat, Vizianagaram goats, Morphological characteristics.

Andhra Pradesh ranks seventh place in the country with goat population of 9.63 millions and Vizianagaram district has local goat population of 2,07,158¹. India is a rich repository of goat genetic resources in the form of 20 well defined breeds. However, the majority (about 75 per cent) of the animals are non-descript. Little systematic effort has been made to describe, evaluate, conserve and improve these breeds. The local goats of Vizianagaram district are well known for their production potential and there is a good scope for improving the goat production in this area as there are ample resources available. There is no documental information available on the phenotype

of these goats. Hence the present study was conducted to the physical characteristics such as coat colour, head profile, horn condition to enable recognition of these animals as a breed.

MATERIALS AND METHODS

A total of 240 goat farmers were selected for the study from 80 villages in 16 mandals of Vizianagaram and Parvathipuram revenue divisions of Vizianagaram district of Andhra Pradesh. The farmers were interviewed by pretested schedule and required information was collected on the physical parameters of goats through interaction with the farmers, personal observations and spot recording of the parameters such as coat colour, head profile, shape of ears, beard, length and shape of horns.

RESULTS AND DISCUSSION

The study on the morphological characteristics of local goats in Vizianagaram district revealed that the predominant coat colour was bicolour

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Present address: ¹Professor & Head of LPM

²Associate Professor & Head of ILFC College of Veterinary Science, Proddatur, A.P.

³Assistant Professor of LPM

(dranithaalapati@gmail.com), N.T.R College of Veterinary Science, Gannavaram

(Fig 1) (48.64%), followed by single colour (Fig 2) (44.22%) and multi colour (07.14%). The bicolour pattern consisted of mainly black and white (30.34%), followed by black and brown (09.87%) and brown and white (08.43%), whereas single coat colour pattern was represented by 22.95 per cent black, 17.09 per cent white and 04.18 per cent brown colour. The dominant bicolour pattern was also reported in Ganjam⁵, Jakhrana⁸, Malabari⁸ and Mahabubnagar³ goats. The wide variation observed in the coat colour is indicative of the fact that the local goats of Vizianagaram district have not been purified through selective breeding and therefore great opportunities exist for its improvement. Coat colour plays an important role in the adaptability of goats to different ecological zones. The predominant black and white coat colour exhibited by the goats in the present study appears to be an adaptation to the pronounced seasonal fluctuations in the intensity and duration of light, heat and cold in this region.

The overall head profile of majority of local goats was straight (80.18%), followed by slightly convex (19.82%). Similar results were also reported in Mahabubnagar goats³ and Osmanabadi goats⁴.

Overall, most of the local goats (99.28%) had pendulous ears, while a small number of

goats had erect ears (00.72%). Pendulous ears were also reported in Kanni Adu⁷, Sangamneri², Ganjam goats⁵ and Mahabubnagar goats³, suggesting this to be a common feature among the goat herds of India.

Overall, majority of the local goats did not have beard (68.38%), while 31.62 per cent of the goats had beard and was noticed in both sexes. Similar results were also reported in Sangamneri² and Osmanabadi goats⁴.

Overall 50.88 per cent of the goats had wattles and were present in both sexes. Wattles were reported to be present in both the sexes of Ganjam goats⁶. Wattles were absent in both sexes of Kanni Adu⁷ and Osmanabadi goats⁴, while they were absent in majority of Sangamneri goats². The wattles may help in storage of fat and water.

Overall, local goats of both the sexes of Vizianagaram district were horned (91.65%), but few were polled (8.35%). Presence of horns in both sexes was in agreement with the information reported in Kanni Adu⁷, Osmanabadi⁴ and Mahabubnagar goats³. Majority of the goats have straight horns (57.88%) and 42.12 per cent have curved horns. Straight horns were also observed in Osmanabadi goats⁴ whereas curved horns were reported in Jakhrana⁸ and Ganjam goats⁶.

Fig 1 : Vizianagaram local buck (Black and white) – Bicolour



Vizianagaram local doe (Black) – Single colour



CONCLUSION

Vizianagaram goats had predominantly bicolour pattern with mainly black and white colours followed by single and multi coloured

patterns. The head profile of majority of local goats was straight. Majority of goats had pendulous ears and did not have beard. Both the sexes were horned. These goats compare to most of the native breeds of the goats in morphological characters.

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