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THE PHENOTYPIC CHARACTERIZATION OF SIROHI GOATS IN SOUTHERN RAJASTHAN

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ABSTRACT : The data of Sirohi goats were recorded at farm (Chittorgarh) and field (Deogarh) during 2007 to 2019. Findings reported that predominant coat colour was found dark brown with patches (40.31%) followed by dark brown (35.20%), brown with patches (19.17%), brown (4.06%), white patches (0.725) and complete white (0.52%), while predominant muzzle colour was dark brown (33.96%) followed by brown (27.39%), dark brown with patches (20.73%), brown with patches (9.68%), white patches (5.42%) and complete white (2.81%) on other hand predominant ear colour was dark brown with patches (32.60%) followed by dark brown (29.48%), white patches (15.72%), brown patches (14.90%) and complete white (0.41%). Among total animals, 3.43 % animal had a beard and 14.34 % animal had wattles. The average horn length and ear length at 3 months to adult age were as 2.37±0.30 cm to 9.02±0.22 cm and 13.93±0.52 cm to 17.74±0.18 cm, respectively.

Key words : Beard, muzzle, patches, Sirohi.

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INTRODUCTION

Goat (*Capra hircus*) is an important species and the third largest species in the livestock category (Livestock census, 2019). Goats are also known as poor man's cow, because of their ability to provide adequate meat, milk, and skin for subsistence farmers' use as well as a little extra for sale. India ranks second in the world in the goat population which is around 148.88 million containing Sirohi goat population of about 3.08 million (DAHDF, 2014). The Rajasthan ranks first with 20.84 million goats in the total goat population of the country (Livestock Census, 2019). Goat is the best animal for the meat industry due to its hardiness, disease resistance, prolificacy, and no socio-religious taboo for its meat consumption. Sirohi is the predominant goat breed of Rajasthan which accounts for 60% of the state total goat population (Animal Husbandry Department Rajasthan, 2016). Phenotypic characters are the first step for pure breed identification in rural areas. A good phenotypic identification provides more accuracy in purebred animal selection. A pure-breed always fulfils the requirement according section criteria. Sirohi goat has proved to be an excellent goat breed concerning to disease resistance, adaptability in a dry or hot climate, growth, and production performance under poor quality range conditions (Meel *et al*, 2010). So pure-breed identification always supports the estimation of live weight. It is a practical, faster, easier, and economical method especially in rural conditions where insufficient resources place constraints in the identification of superior animals in terms of body weight (Tyagi *et al*, 2015). In goats, bodyweight is the basic economic trait that directly influences their market value so that the measurement of the phenotypic traits provides gross estimation about bodyweight to farmers which helps in earning adequate price of goat kids by selling in the market.

MATERIALS AND METHODS

Data were collected from LRS Bojunda, Chittorgarh as a farm unit and field units of AICRP of the goat improvement project for the period from 2007 to 2019. The various zoometric traits like the body coat colour, muzzle colour, presence and absence of beard and wattles as well as horn and ear length were recorded on the basis of visual observation and with the help of measuring tape with accuracy to nearest 0.5 cm as per the standard

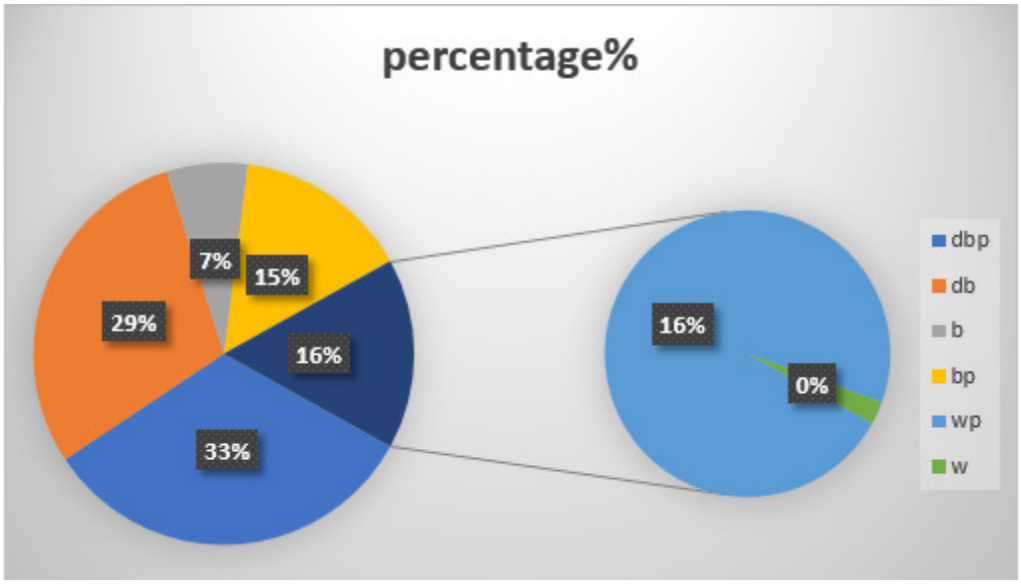

Fig. 3 : Ear colour of Sirohi goat.

Ear length : In the present study, the average ear length in Sirohi goats at 3, 6, 9, 12 months and adults were 13.93±0.52 cm, 15.41±0.48 cm, 15.83±0.36 cm, 17.13±0.21 cm and 17.74±0.18 cm, respectively (Table 4). The study has a close similarity with a report of Verma *et al* (2010) as 17.29±0.19 cm ear length in Sangamneri goats and Chauhan (2018) 17.24± 0.24 cm ear length in Osmanabadi goats.

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