

Purgi – An unidentified goat breed of Kargil

Safeer Alam¹, Gurjeet Kaur² and Nazir Ahmad³

Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir Shalimar, Srinagar, J&K 190 025

The Purgi goats are small in body size (adult's body weight 15.5-23.5 kg) and are being used for meat and fibre production. This breed has good influence on socio-economic status tribal population in the area. 72% of the breeders have experience in goat rearing; the mean flock size was 26.96 with a composition of 2 to 3 breeding buck, 16.39 does and 7.21 young ones. The average income from all sources for the breeders was ₹ 1,42,134 where livestock contributed ₹ 36,575 and Purgi goats ₹ 19,439 per annum. Animals are maintained under combination of extensive and semi-intensive feeding system. Natural mating, breeding during September-15-November-15 (66.0%), kidding 70.0 to 73% during March-April with 97.0% single kidding was observed. The most prevalent diseases in the area were CCPP, PPR, FMD, goat pox and foot rot. The breed is having high economic importance and market for the livelihood of the breeders.

Key words: Fibre, Meat, Purgi doe, Purgi goat

ANIMAL husbandry plays a pivotal role in the overall agricultural economy of the country because of its production potential and improving socio-economic status of the rural people. Sheep and goats are important in subsistent agriculture on account of their unique ability to adapt and maintain themselves under harsh environmental conditions. They promote crop production by supplying manure and raw materials for the agro-allied industries and the manure is also a source of biogas. They also play important socio-cultural roles that are difficult to quantify monetarily such as their use for sacrifices and rituals, as pets and serve as insurance against crop failure.

Among the livestock population goats make an important contribution to the sustenance of small and marginal landholders and landless rural people by their contribution towards marketable commodities such as meat, milk, fibre and skin. It also plays a leading

role in eradication of poverty for small farmers and landless laborers by self-employment. In fact, goat may constitute a 'living-bank' providing a cash buffer for landless, marginal farmers, unemployed youths, aged, physically handicapped persons and especially to women folk. Goat with

its unique feature of providing maximum returns with minimum care and expenditure has made it the most popular livestock for the poorer sectors of India.

Rearing of goats is a traditional vocation in Jammu and Kashmir (J & K). The tribals viz Bakerwals,



Fig. 1. Purgi goat with kid

Gaddies and Changpas have developed perfect professionalism in Sheep and Goat rearing. Being the source of their livelihood, they have become the saviors of goats over the centuries. In J&K, the goat population is 2,347,000 and the number of persons involved in goat farming business are 235,985, whereas number of goats per 1,000 household is 1062. There is a good population of Purgi goats in the district Kargil with high market value in terms of chevon and also contribute in fibre production. This breed is a good source of farmers' income, hence, attracted the researchers for its evaluation, documentation and its role in the livelihood of the tribal population in the district.

Utility of the breed

Synonym: Ravak and Zanskari

The Purgi breed of goat is small in size (adult's body weight 18.5-23.5 kg) with dull black and white coat colour and plays a vital role in livelihood support in the area. The breed is being used by the breeders/farmers for meat as well as fibre production and is known for the chevon having good market in the area.

Strength/ weakness of the breeding tract

- Farmers have very good experience in rearing livestock since long
- Availability of pure organic meat
- Good wool and quality pashmina producing livestock is limited
- Low reproductive efficiency of the herds and low productivity also

- Poor accessibility in delivery of inputs and transport of product
- Lack of technology to improve pasturelands
- Weak coordination among the stakeholders
- Inaccessibility in some of pasturelands
- Lack of improved technologies of wool, skin and hide processing.

Breeding tract

Kargil is the second largest town in Ladakh after Leh, scattered over an area of 14,086 Sq.kms., having population of 143,388 and an average literacy rate of 74.49%. More than 90% of the population is engaged in animal husbandry activities. Sheep and goat rearing is the core activity of rural masses in the state and plays a vital role in socio-economic upliftment of weaker section of the society viz. Gujjars, Bakarwals, Chopans, Gaddies and Changpas. The breed is uniformly spread over in whole Chiktan block to the Sankoo block of Kargil, the details of the distribution area of the breed is given below:

Distribution

Chiktan Block: Villages - Shahar, Youkma, Kharboo, Sandoo, Lamsu Khangral, Stakchy, Baroo, Treapone, Minji

Taisuru Block: Villages - Parakarchik, Tangole, Panikhar, Sangra, Saiaskout, Titi-chumit

Shargole Block: Villages - Phokarphoo, Shargole, Tacha-karit, GM-Pore

Sankoo Block: Villages - Umba,

Stakpa, Barsoonallah, Blambis

Socio-economic profile of Purgi-goat farmers

The goat population is 3.56 lakh in Ladakh, where Kargil alone possesses 94,440 thousands of goats, out of which, about 80% shared by Purgi breed of goats. Thus purgi goats are dual purpose (meat and fibre) type and play vital role in livelihood security of Kargil tribes. The breed is being used by the breeders/farmers for meat as well as fibre production and is known for the quality chevon and having always good demand in the market. Most of the breeders belong to the age group of 40-60 years and maximum breeders have education level of primary to matric standard. Most of the farmers belong to schedule tribe (muslims) community and are literate. The land holding (irrigated) size varies between 0.20 to 0.80 hectare and under non-irrigated conditions it ranges 0.2 to 0.4 hectare with 96% of the breeders. More than 70% of the purgi breeders have good experience of goat rearing and the varies from 12 to 27 number of goats with the with flock composition of 1 to 3 breeding buck, 9 to 23 does and 4 to 11 young ones. Purgibreeders have other livestock species also with a herd/ flock size per household of 1-2, 1-6, 5-11 and 8-13% of local cattle, cross-bred cattle, sheep and back-yard poultry respectively. The average total annual income from all sources of the breeders are ₹ 142,134 which includes other sources, agriculture



Fig. 2. Purgi buck



Fig. 3. Purgi kids (Weaners)



Fig. 4. Purgi female kid (6 month old)

and livestock as ₹ 28,969, 57,151 and 36,575 respectively. The income from goats only is calculated as ₹ 19,439 per year, whereas, the income per goat/year is ₹ 939.24. Mostly houses are pucca with both open and close type. Animals are kept during night time only in the houses which are nearby or inside the dwelling house.

Physical traits

Coat colour: Black – 65 to 74%, White – 20 to 22% and Brown – 4 to 15%

Coat colour pattern: Black with white patches – 65%, White with black patches – 25%, White with brown patches – 10%

Head shape: Straight – 80% and Slight convex – 21%

Eye colour: Black – 3.0%, Brown – 14.0% and White – 83.0%

Ear orientation: Droopy: 88.0% with curled tips and Straight – 12.0%

Ear size: Medium – 96.0%, Small – 4.0%

Horn orientation: Turned backward on neck-13.0%, Half turned backward on neck-47.0%, Upward turned slightly backward-3.0% and Upward turned outward-37.0%.

Horn type: Straight – 11.0% and Half twisted – 89.0%

Colour of hooves: Light black

Body size: Small size

Animal behavior: Animals are active, alert and docile type

Body measurements (cm)

Body length: At Birth (41.0), Weaning (64.0), 6-months (75.0), 12-months (80.0) and Adults (84.0) on an average.

Body height: At Birth (36.0), Weaning (47.0), 6-Months (51.0),

12-months (57.0) and Adults (61.0) on an average.

Heart girth: At Birth (43.0), Weaning (63.0), 6-months (70.0), 12-months (74.0) and Adults (78.0) on average.

Paunch girth: At Birth (46.0), Weaning (68.0), 6-months (72.0), 12-months (75.0) and Adults (79.0) on an average.

PURGI DOE

Management practices

Animals are maintained on semi-intensive feeding system and fed on an average 1.5 kg of greens/bhusa/dried alfa-alfa per goat per day especially during chilling winters when animals cannot be taken out. Animals are fed lahori salt adlib and allowed to drink water of streams/ponds twice a day by almost all the farmers. Mating of animals is done by natural methods during September 15 to November 15 (65.0%), kidding (70.0 to 73.0%) takes place during March-April with an average of 97.0% of single kidding. Animals are mostly treated by paravets followed veterinary assistant surgeons and owners by allopath and indigenous medicines respectively. Deworming is done twice in a year. The most common diseases in the area are contagious caprine pleuropneumonia, *Peste des petitis* ruminants, foot and mouth disease, goat pox and foot rot in the area. The vaccinations are being practiced by the farmers on regular basis for infectious diseases. The purgi goats are dual purpose (meat and fibre) type and play a vital role in livelihood security of Kargil tribes.

Housing: All the breeders have Pucca houses with open and close arrangements for night shelter.

Feeding: Extensive feeding in combination with semi-intensive system is followed by majority of the farmers. Mostly farmers supply Green/Straw: 1-1.75kg, Mineral mix/salt: Only Lahori salt 10-15gram/week

Reproduction management

Age at first heat varies between 310 to 332 days, Weight at first heat comes between 10.0 to 13.0 kg, Age at first service varies between 332 to 345 days, Weight at first service comes between 11.30 to 14.0 kg, Gestation period ranges between 148 to 155 days and the Kidding Interval ranges between 280 to 299 days.

Production management

Body Weight (kg): At birth-1.20 to 1.40 kg, Weaning -3.45 to 3.96 kg, 6-months: 6.00 to 8.50 kg, 12-months: 8.50 to 10.75 kg and Adults: 18.0 to 24.50 kg

Fibre Production/year/Adults ranges between 1.70 to 2.45 kg

Fibres are used for Bag, Rope and Blanket making)

SUMMARY

The declining population of this breed may be due to socio-economic conditions of the breeders/farmers and the management practices prevailing in the area. As the matter of fact no serious exercises have been made to describe and evaluate this native goat breed on scientific lines and to make good results and contribution of this breed.

Keeping in view the unique characteristics, adaptability in extreme cold climatic conditions of Kargil, contribution to the income of the livestock keepers, Purgi may be registered as separate breed of goat and suitable measures may be taken up by the government to reverse their declining population trend and make the Purgi goat husbandry more remunerative so as to conserve this precious goat population of the area and ensure food, nutritional and livelihood security for tribal populations of Kargil in J&K.

¹Deputy Director, Extension, (Trgs), Animal Genetics and Breedings, ³Professor, ²LAARDS, Allahabad, U.P., Corresponding author's email: safeeralam1@gmail.com