

# ATTAPPADY BLACK GOATS - THE GOATS OF THE TRIBALS IN ATTAPPADY

Stephen Mathew<sup>1</sup>

T.V. Raja<sup>2</sup>

Sosamma Iype<sup>3</sup>

India is endowed with large, diverse genetic resources of goats adapted to the specific agro-ecological conditions prevailing in their natural habitat. Among these goats 20 breeds have been accepted as distinct. Malabari or Tellicherry is the only recognized breed of goat in Kerala. Attappady Black goat, which is found exclusively in Attappady area in Palakkad district and popularly known as the goats of tribes in Attappady is such a class still not recognized as a breed despite its unique characteristics.

Recently the Kerala Agricultural University completed a study on survey and characterization and evaluation of Attappady Black goats as a part of network of National Bureau of Animal Genetic Resources, ICAR to develop breed descriptors. Developing the breed descriptors is an inevitable requirement towards the recognition of any breed. Vechur cattle have been recognized as a breed as a result of the conservation efforts and characterization of the breed. Thus this study is another major step in strengthening the position of Kerala in the breed map of the country.

## Native tract:

The Attappady block is one of the high range areas of Kerala lies between The Nilgiris hills (2300 meters above the sea level) and the Muthikulam hills (2000 meters above the sea level) of Western Ghats. The place is situated between 10°55' 0" to 11°14' 9" Northern latitude and 76° 27' 11" to 76° 48' 8" Eastern longitude. The total geographical area of Attappady is 874.23 square km and is divided into three panchayaths viz. Agali, Pudur and Sholayoor. Two rivers namely Bavani and Siruvani form the main water source for the Attappady area. Humidity is above 84% throughout the year with more than 90 % during seven months. Both the southwest and northeast monsoons are active and moderately distributed. Annual rainfall is 3849 mm. The main soil type of Attappady area is Red loam and the pH of soil ranges from 5.0 - 5.5. The total cultivable area comes around 20% of the total geographical area of Attappady. Banana, coconut, pepper, groundnut and cotton are the main cultivation in this region. Commercial crops like cashew, cotton, rubber and sugar cane, Oil seeds like ground nut, the spices varieties like cardamom, ginger, pepper, turmeric and beverage crops and stimulants like areca nuts, coffee and tea etc. are also grown in this region. Generally fodder crops are not cultivated in this region.

## Survey Work

Attappady Block Panchayath consists of 37 wards, 17 in Agali and 10 each in Sholayur and Pudur village Panchayaths. Seven wards were randomly selected from each village and

survey was conducted in these 21 wards for complete enumeration of the demographic distribution of the breed using the Questionnaire provided by the National Bureau of Animal Genetic Resources. Totally 9207 households were surveyed out of which goats were maintained only in 13.40 % of households (1234). General information about the households, management practices and animals maintained were collected from these 1234 households.

## GOAT POPULATION

A total of 13760 goats were surveyed and among these 5595 were Attappady Black Goats. Of the total goats 21.6% were kids below three months of age, 19.2% were aged 4-6 months, 7.7% were young stock, 4.8% were yearlings, 5.8 % were adult males and 40.9 % were adult females. Of the total goats surveyed, 80.7% were maintained by the tribal communities, followed by the other communities (13.3%), other backward communities (5.3%) and scheduled castes. The village-panchayath wise data were extrapolated to estimate the total goat population in the whole Attappady area. The overall total goat population in the Attappady block was estimated to be 23346, and among them only 9351 (40.1%) were Attappady Black Goats.

## Breed Characteristics

Attappady black goats as their name indicate, are black with bronze coloured eyes. Rarely white spots are noticed on the forehead. The colour of the skin is either light black or grey. Tassels/ wattles were noticed in 21.1 % of the goats and beard is noticed only in 6.8% of the adult animals. In majority of the adult goats, horns are present and they are curved laterally with backward oriented tips. Black coloured long pendulous ears cover the lateral side of the face. The hairs are glossy and straight. Mostly (88.9%) the goats had the bunchy type tail, which are curved in shape (99.2%).

The average birth weight of males and females are 1.73 and 1.60 kg, respectively. Bucks above one-year age weigh around 26 kg and those above 18 months weigh around 35 kg. The corresponding weights of females are 23 and 31 kg, respectively. Castrated males were found reaching around 55 kg by the age of 3 to 4 years. The average body length, chest girth height at withers and height at rumps of 69 adult (above 18 months) males were 66.7, 71, 79.5 and 75.7 cm and that of 329 adult females were 62.8, 68.9, 66.8 and 71.0 cm.

The average age at first oestrus, age at first kidding and kidding intervals were 7.6, 13.5 and 8.1 months respectively.

<sup>1</sup> Associate Professor, <sup>2</sup> Assistant Professor, <sup>3</sup> Director (Rtd.) Centre for Advanced Studies in Animal Genetics and Breeding, College of Veterinary & Animal Sciences, KAU, Mannuthy

The males were used for service at around 8.8 months. The average litter size was 1.04 for the first kidding but in subsequent parities, as the age advances, the average litter size becomes around 1.5. The incidence of singles is more in first kidding. Only few tribes allowed recording the milk yield of their goats. The average daily milk yield of the recorded animals was only 170 gm and the average lactation period was 3 months. The carcass component percentage of the slaughtered animals was around 42 per cent of their live body weights.

#### **Management Practices**

Generally flocks of 10-20 goats reared by single farmer. The flocks are maintained mainly on extensive grazing/ browsing system. Country grass and local tree leaves are the main source of greens fed to the goats. Straws of Jowar, Maize and dried vegetative parts of cowpea and groundnut are also used as dry fodder for the goats. Banana leaves are also fed to the goats. Concentrate feeding is not at all practiced by the farmers/tribes. The goats are taken out for grazing to the nearest hilly areas and forest areas around 10 o' clock in the morning. Generally this is done by the women and elders. The goats are brought back by 5.30 in the evening. The overall average grazing period was found to be 7.48 hrs and covered on an average 2.80 km. Community grazing is also a common practice in the area. Two or three flocks were taken go for grazing. Kids below three months are kept in houses while others are let out for grazing. Water was given to the goats ad lib. The rivers are the major sources of water (62.3%) followed by pipe water (26%). Around 70.2 % of the farmers provided water twice daily for the goats. Around 60 per cent of the goat owners' constructed separate goat sheds away from their house while the rest housed their animals either in the part of their houses or in sheds sharing a common wall with their residence. Majority (51.7%) of the goat sheds was at the ground level and the remaining 48.3% houses were on raised platforms. In most of the households surveyed, goats were housed only during the night (97.7%). Around 99.6% of the goat sheds were having kutcha type of construction. The floor and the sidewalls were constructed using bamboo or other locally available wooden materials and in most household coconut or other tree leaves were used as the roofing material.

Natural service was the only method of breeding practiced by the goat farmers of the surveyed area (100%). It was observed that 90.2% of the cases breeding occurred mostly during the grazing time and only in 8.8% during housing. The uncontrolled natural service of the Attappady black does by the non-descript bucks were more commonly seen during grazing hours. Even though there was no season of breeding, incidence of kidding was more during the months of September to March and it was maximum in the month of November. Country method of castrating the male goats is also in practice among the goat farmers and is done by experienced local people. Castrated males are kept for offering to temples for sacrifice during the festival time. Milk yield of the does is very low and the tribes neither milk their goats nor consume goat's milk. All the milk is given to the kids and the kids are raised entirely on their dam's milk.

#### **Disease management**

Majority of the tribes do not take their animals for treatment and only 30.4 % of the owners treated the goats. Methods of

treatment were mostly herbal (62.7%) or allopathic (36.7%) and very few used local treatment (0.6%). Only 10% of the farmers dewormed the animals periodically and only 7.2% of the farmers vaccinated their goats. Respiratory tract infection and worm infestation were main problems seen when the goats were sick.

**Disposal of animals:** The purchase/sale of the animals was controlled by the middlemen from Coimbatore district of Tamil Nadu and Malappuram district of Kerala. There is a market (Santhai) conducted on every Saturdays at Kottathara. The sale of the animals in the market also takes place through middlemen or agents.

#### **Importance of the Attappady Black goats**

Attappady Black goats have been evolved through natural selection and they are very adaptable to the agro-climatic conditions of the area and are very resistant to many diseases. Even though these goats are raised purely on grazing without giving any concentrate feed, their body weight performance is quite comparable to that of any meat breed in India. At about one year, males weigh 26 kg and females weigh 23 kg and the mature male and females weigh around 35 and 30 kg, respectively. They kid at the age of 13.5 months and thereafter at 8 months intervals. The black colour is another special quality, which makes them a highly attractive meat animal for tribes and also others as evident from the buyers reaching the native tract from North Kerala and Tamilnadu.

The tribal communities of the Attappady area have reared this breed of goats since a long time in its pure form. But the introduction of other breeds of goats by the later settlers and also through the government policies has resulted in a change in the population structure. The uncontrolled natural breeding of the female goats either by the scrub or non-descript bucks leads to the dilution of the breed at a faster rate. Since the total number of Attappady Black goats is less than 10,000 they come under the insecure category. Therefore every effort should be taken to conserve this valuable germplasm of the state. The Block Panchayath, State Animal Husbandry Department, the Agricultural University and ICAR should work together with the tribes and others involved in goat rearing in the area, for the conservation, development and improvements of this breed. The awareness created through the research project on the value of Attappady germplasm possessed by the tribes should be utilized in the breed improvement programmes by participatory approach. The state department goat farm at Kottathara should be converted to a breeding unit with a good selection and breeding programme and made a source of distribution of pure Attappady goats. The first step towards conservation has to be the removal of scrub bucks from the Black goat area. The surplus pedigreed bucks in the Kottathara goat farm can be supplied to the farmers in exchange of bucks of other types. Kerala Agricultural University can contribute by formulating a suitable policy for conservation of Attappady Black goats with insecure status and for identifying genetic markers for early selection of animals and evolving suitable selection indices. ICAR and other research coordinating agencies can support the cause of saving a goat breed having all potentials to be developed as an excellent meat breed. □