

Karnah Sheep – A Review

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Article History

Received: 15.06.2021

Revised: 24.05.2021

Accepted: 28.06.2021

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INTRODUCTION

Karnah is a registered, native and distinct sheep breed of Kashmir distributed to Karnah Tehsil of Kupwara district. The breed is known for mutton and course wool production. The breed has been crossed with Kashmir Merino for improving fine wool production. The coat colour of animals is usually white. However, black coat colour is also common. The breed is least studied and scanty information is available about the breed. The present article is written to collect published information about the breed.

Growth traits: Growth is defined as an increase in tissues and organs of the animals per unit time (Tariq et al., 2011). It is measured as body weight at a specific age. Growth traits are indicators of adaptability of an animal to the existing environmental conditions (Lalit et al., 2016). The growth traits of Karnah sheep are presented in Table 1.

Table 1: Growth traits of Karnah sheep

Sex	Trait				References
	BW (kg)	(kg)	6MW (kg)	YW (kg)	
Male	2.8±0.02	7.6 ± 0.06	21.1±0.56	21.3±0.79	Ganai et al. (2009)
Female	2.7 ± 0.02	7.8 ± 0.07	21.4±0.39	20.4±0.023	
Male	2.78±0.02	7.55±0.06	21.07±0.79	21.280.79	Gupta et al. (2007)
Female	2.65±0.02	7.84±0.07	21.36±0.39	20.43±0.23	

BW = Birth weight, WW = Weaning weight, 6MW = Six months weight, YW =1 year

Biometric traits: Body measurements of animals provide information about its morphological structure and physiological status in addition are used for establishing breed standards and developing suitable selection criteria (Rather et al., 2021). The average biometrical traits of Karnah are presented in Table 2.

Table 2: Biometrical traits of Karnah sheep

Sex	Age	Body length	Chest girth	Height at withers	References
Male	Birth	28.2 ±2.90	28.6±0.40	30.5±0.30	Ganai et al. (2009) Gupta et al. (2007)
	3 Months	43.4±0.28	48.2±0.28	38.0±0.29	
	Adult	45.1±0.36	72.9±1.11	45.0±80.00	
Female	Birth	27.2±0.22	28.6±0.36	29.2±0.26	
	3 Months	39.7±0.42	45.1±0.36	36.00±0.31	
	Adult	61.7±0.34	68.5±0.45	58.3±0.27	

Wool traits: Ganai et al. (2009) reported average wool production at 1 year, 2 year age and in adult stage was 529.39±23.85, 612.74±14.41 and 710.0±47.26 gm, respectively in Karnah sheep. However, Arora and Garg (1998) reported wool yield of 1 to 1.5 kg of wool per animal annually. Average staple length of 5.11±0.46 (males), 5.39±0.15 (females) was reported by Ganai et al. (2009) in Karnah sheep. The wool of Karnah sheep is

course to medium fine with fibre diameter of 28 to 34µ (Anonymous, 2021).

Reproduction traits: Karnah is a seasonal breed. The age at first mating of 1.5 to 2 years was reported by Ganai et al. (2009). The average litter size of 1.04 and the age at first lambing varied from 2 to 2.5 years in Karnah sheep Ganai et al. (2009). The reproduction traits of Karnah sheep are reflected in Table 3.

Table 3: Reproduction traits of Karnah sheep

Trait	Average	References
Age at first mating (Males)	20.00±1.15(Months)	Ganai et al. (2009) Gupta et al. (2007)
Age at first estrus	19.0±1.12(Months)	
Estrous cycle duration	20.0±1.20(days)	
Estrous duration	24.0±1.50(Hours)	
Age at first lambing	25.04±0.42(Months)	
Inter-lambing period	365 (days)	
Litter size	1.04	
Life time number of matings	6-7 times	

General Information: The general information about Karnah sheep is presented in Table 4. The breed is endangered owing to indiscriminate crossbreeding with Kashmir

Merino sheep. There exists no conservation policy to conserve this precious germplasm.

Table 4: General information

Distribution	Karnah tehsil
Horns	
Male	Large curved
Female	Polled
Wool	White
Breeding	Cross breeding with Kashmir Merino
Status	Endangered

Recommendation: The breed should be conserved and a nucleus breeding farm should be established in its ecological niche after systemic survey. Incentives and subsidies on

feed and fodders should be provided to the farmers for rearing the breed.

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