**Study on Phenotypic and Morphometric Characteristics of Dairy Cattle in Nuwara-Eliya Veterinary Division**

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The study was conducted to identify phenotypic and morphological characteristics of dairy animals in Nuwara-Eliya veterinary division. Morphometric and phenotypic measurements were taken from 209 cattle (191 females and 18 males). Each animal’s breed characteristics and color pattern were recorded using a pre prepared questionnaire for their coat, muzzle, face, horns, tail switch, hoof, and legs through visual observation. Morphometrical measurements were measured of the body, face, ear, horn, tail, and rump using a measuring tape. The result showed individual variation among dairy cattle in both qualitative and quantitative traits. In overall Black was the predominant coat color in the population (57.9%) while most prominent coat colour pattern of the cattle was pied (45%). 74% of the cattle were standing with dewlap while 97% were absent with the hump. From the population 83% were horned with curved pattern (87%) and 89% were having straight back. Ear edge of the majority of cattle (57%) were straight while others were having round edges (43%) and lateral positioned (55%). Majority of the animals having medium (37%) to larger (36%) teats. Furthermore, 74% animals of the population were docile with light muscular structure (86%) showing tendency on dairy phenotypes. The overall means of head length, head width, horn length, wither height, perimeter of thorax (PT), length of head until the ischium, rump length and tail length were 47.06cm, 21.27cm, 9.47cm, 123.04cm, 150.79cm, 171.04cm, 38.89cm, and 92.02cm respectively. Cephalic index, Saddling index of the above 24 months age population were 44.09, 67.96 respectively. In overall, in this study an attempt was made to assess Morphometrical and phenotype traits of the locally available dairy animals in Nuwara-Eliya veterinary region which need to be complemented by genetic characterization to fully exploit the potential of the breed.

**Keywords:** *cattle mapping, characteristics, phenotypic, morphometrical, structural indices*