

CHARACTERIZATION OF VILLAGE PIGS IN KALAMULLA, KALUTARA DISTRICT OF SRI LANKA

M.M. Mallikarachchi¹, D. Wijayawardhana² and S.C. Somasiri¹

¹*Department of Animal and Food Sciences, Faculty of Agriculture, Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka.*

²*Department of Plant Sciences, Faculty of Agriculture, Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka.*

Native pigs in Sri Lanka are called village pigs (VP) and data on their population diversity is scarce. This study investigated the phenotypic diversity of VP and the socio-economic status of VP farming. Qualitative observations (coat color type and pattern, ear type and orientation, tail type, and snout shape), and quantitative measures (body length, tail length, ear length, chest girth, height at withers, abdominal circumference, face length) were taken from a sample of 26 VP (n=3 sows, n=7 boars, n=3 sucklings, n=4 barrows and n=9 gilts) in *Kalamulla, Kaluthara* district. Socio-economic data of farmers were collected using a pre-tested structured questionnaire by interviewing seven VP farmers. Qualitative data were analyzed using the Chi-square test. Quantitative data analysis was done using One-way ANOVA and multivariate techniques. The dominant coat color (50%) of the sample was black and 46% of pigs showed either black or white skin pigmentation. The majority of VP had forward-orientated ears (96%), curly tails (54%), and long thin snouts (62%). Only 3.8% of village pigs had tusks. There were no significant differences between adult male and female animals for mean values of the measured quantitative characteristics. The first two principal components expressed 80.03% of the total variation in the population. The loaded characteristics to explain this variability were body length, chest girth, abdominal circumference, and face length. Cluster analysis showed three distinct groups of VP, and those groups were statistically different ($p=0.001$). They were reared for meat purpose under a free-range system and minimal expenditure was involved for feeding as they are fed with swill obtained at a cheaper price from the nearby hotels in *Kalutara*. Socio-economic data shows that the government support for the promotion of VP farming was meagre. The study shows that the farmers have the knowledge of management of VP and they can be reared with minimal resources. Further, the farming of VP has a good potential to be popularized among the villages as it provides a better income to the farmers.

Keywords: Free range system, Multivariate analysis, Phenotypic diversity, Socio-economic data