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Goat Diseases and Their Association with the Rainfall Pattern in the Maruthankerny Veterinary Range of the Jaffna Peninsula

S. Sukeerthan^{1,2}, E.B. Sujeevan³, S. Anuja⁴, R. Eeswaran⁵ and G.L.L.P. Silva^{1,6}*

¹Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka,

²Government Veterinary Office, Maruthankerny, Jaffna, ³Universal Vet Care Animal Clinic and Surgery, Kandy, Sri Lanka, ⁴ Government Veterinary Office, Thunukkai, Mullaitivu,

⁵Department of Plant, Soil and Microbial Sciences, Michigan State University, USA,

⁶Department of Animal Science, Faculty of Agriculture, University of Peradeniya, Sri Lanka

**Corresponding author: sukeevet@gmail.com*

Maruthankerny veterinary range covers a long stretch in Jaffna District of Sri Lanka extending from Point-pedro to Chundikulam forest reserve. Animal husbandry in the area is dominated by local breeds of goats and cattle that are kept under extensive management system. Disease is one of the major constraints to this production system, especially parasitic and infectious diseases, which show seasonal occurrence. Therefore, this study was conducted to determine common diseases of goats in Maruthankerny veterinary range, and to find out whether the prevalence of these diseases show a pattern associated with the rainfall in the region. The case records maintained at the Maruthankerny Government Veterinary Office for the last five-year period (2014-2018) were considered for this study. Monthly rainfall records for the study period were obtained from the Department of Meteorology, Sri Lanka. Descriptive data analysis was conducted to understand the prevalence of the diseases, and the correlation analysis was performed to explore the association between monthly rainfall and the different diseases reported during the study period. The order of the reported diseases from the most frequent to the least frequent is cerebrospinal nematodiasis (CSN), bite injuries (animal bites), contagious pustular dermatitis (CPD), parasitic diseases, respiratory diseases, diarrhea, tetanus and rabies. CSN, CPD, parasitic diseases and diarrhea had significantly ($p \leq 0.01$) positive association with monthly rainfall, indicating an increasing trend of these diseases during the rainy season. Respiratory diseases and tetanus had significantly ($p \leq 0.01$) negative association with monthly rainfall where the abundance of the diseases substantially increased during the dry season. These findings would be helpful to develop and implement a season-specific disease management strategy for goat production system in this region.