

STATISTICAL MODELLING OF DISEASE OUT BREAK IN SILKWORM (*Bombyx mori. L*)

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Abstract

Thatte disease is a contagious viral disease prevalent in silkworm (*Bombyx mori. L*) rearing areas of Karnataka, India, under tropical environment. It is assumed that the out break of the disease is seen more under improper aeration and unhygienic conditions. The pathological isolation of the virus is still under investigation. Statistical modeling of the disease out break is attempted in this paper. Spatial data of around 300 silk farms are obtained comprising of 10 causal factors which are both continuous and categorical. Fitting of linear and non linear models are explored. A conditional linear logistic regression model has a better fit compared to the non linear models. A test for the partial contribution of additional predictors is proposed for ascertaining the variable contributions which is discussed in detail.