

MODELLING THE SURVIVAL OF *Escherichia coli* IN SOIL : EFFECT OF PH AND TEMPERATURE

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Survival of *E. coli* on soils determines its the availability for transport during rainfall events. In this study, the survival of *E. coli* in soil was examined under different pH in saturated condition. Results indicated that first order decay model fit well. Decay rate of *E. coli* increased when pH of the soil decreased from 7.4 to 3.2 and also when temperature increased from 20°C to 30°C. Survival was prolonged in neutral and cool condition. There is no significant difference between decay rate at pH of 6.4 and 7.4. At pH of 6.4 and 7.4 at 30°C and at pH of 7.4 at 20°C, there was evidence of regrowth. Quantitative relationships between decay rate and pH at 20°C and at 30°C were developed for use in environmental modeling purposes.