



### ABSTRACT

Leptospirosis is recognized as an important public health problem worldwide, especially in tropical countries like the Philippines. It is transmitted between animals by direct or indirect transmission. The present study was carried out in order to determine the survival of leptospires in varying concentration of seawater under the optimum moisture content - pH of agricultural soil and its association with salinity. Sixteen set ups were prepared each with a range of 40 – 55 % moisture content and 6 – 8 pH. Varying salinities were prepared from the set ups ranging from 0.5 to 3.3 pph. Pathogenic leptospire was inoculated into each tube and incubated at 30°C. *rrl*- and *flaB*-PCR were used to determine the survival of leptospires. The results showed that out of 16 samples (8 samples each from Noveleta and Tanza), rendered positive to *rrl*-PCR conforming genus *Leptospira*. These 2 samples were observed in setup with a salinity of 0.5 pph and 0.8 pph, respectively. Further, no association between salinity and the survival of leptospires in *rrl*-PCR was observed. These findings suggest that seawater influences the non- or decreasing pathogenicity of leptospires.

*Key words:* optimum moisture content-pH, *flaB*-PCR, *rrl*-PCR, *Leptospira*