

**SURVIVAL OF URINE PATHOGENS IN SOILS
TREATED WITH *Bacillus subtilis***

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ABSTRACT

This study dealt on the survival of urine pathogens in soils treated with *Bacillus subtilis*. Urine samples were taken from twenty (20) healthy male students of DLSU-D and the enteric pathogens that were used in the study are *E. coli*, *E. aerogenes*, *K. pneumoniae*, *P. vulgaris* and *S. typhi*. Randomized Complete Block Design was employed as the experimental design with three treatments wherein T0, the control group, is soil without *B. subtilis* in urine, T1 is soil with *B. subtilis* in water, and T2 is soil with *B. subtilis* in urine. Agar Disk Diffusion Assay was used as a preliminary test to investigate the antagonistic effect of *B. subtilis* against enteric pathogens. Miles and Misra were performed to determine the initial and final count of the enterics. Results show that *B. subtilis* was able to inhibit the growth of all the enterics tested. When subjected to soils, the results show significant difference upon the administration of *B. subtilis*. The bacterial count increases when *B. subtilis* is not administered and the count of enteric pathogens decreases when *B. subtilis* is administered. Therefore, it can be concluded that *B. subtilis* is effective in reducing the growth of urine pathogens in soils.

