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Study of Microbial Diversity of Rosa Centifolia

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Abstract : Increasing loss of floral fragrance over a long duration has provided an opportunity to study the microbiological aspect of the flowers. Besides having ornamental value, roses are also used commercially to distil the fragrance for the production of numerous value added products. This study is an attempt to identify microbiota of *Rosa centifolia* that might be responsible for the loss of their natural fragrance. A total number of five bacterial strains comprising of Gram negative, Gram positive and acid fast bacilli, were isolated followed by biochemical characterization for identification of bacterial genus. The tests for characterization involved endospore staining, catalase test, motility test, starch hydrolysis test and glucose fermentation test. The identified dominant bacteria included *Pseudomonas* spp., *Escherichia* spp., *Streptococcus* spp., *Bacillus* spp.,and*Shigella*spp., out of which *Pseudomonas* isa scented bacterium. *Bacillus* and *Escherichia* were the most profuse isolates the isolated microbial population. Study for halo-tolerance revealed that all isolates had moderate tolerance for NaCl. A further study to determine the biochemical effect of microbial interaction with fragrant volatile molecules of flower is in progress.
Keywords : Rose, Microbial population, Isolation, Scented microbes.

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