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Decolourization of industrial soil by using dye decolourizing bacteria

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ABSTRACT : Textile dyes are an important class of synthetic organic compounds and are, therefore, common industrial pollutants. They are produced in large scale and may enter the environment during production or later on during fiber dying. Thus, there is a need for developing treatment methods that were more effective in eliminating dyes from textile waste soil as its source. *Staphylococcus saprophyticus* was isolated from soil of a textile plant and selected as the most active dye degrader of 11 isolates. The important parameters including temperature, pH, carbon and nitrogen source on crystal violet decolourization were investigated. Under the optimum conditions, dye decolourization (92.35%) was successfully achieved within 120 h. at 30°C, pH 8 with sucrose and beef extract as the energy source.

Key Words: *Staphylococcus saprophyticus*, crystal violet, textile waste soil, temperature, pH, carbon and nitrogen source.