

Track: Fluvial and river engineering dynamics (3 papers)***Nutrient Uptake and Growth of Bovine Rectal Bacterium in Application of Textile Wastewater Bioremediation***

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Textile industry produces a wastewater that has been adversely affected in quality by anthropogenic influence that has a high importance in terms of its environmental impact. It consumes considerably high amount of processed water that produce highly polluted wastewater. The bovine rectal bacterium (BRB) is used in this study as an alternative for green technology method for treating the textile wastewater without causing any serious unacceptable damage to the natural environment and human health. This paper presents the BRB that consumed selected nutrients in textile wastewater. The chosen nutrients used to study the optimum growth of BRB are magnesium sulphate ($MgSO_4$), ferric chloride ($FeCl_3$), calcium chloride ($CaCl_2$) and phosphate buffer. The BRB growth rate in textile wastewater in different types of nutrients and incubation time were evaluated in both; aerobic and anaerobic conditions. Consequently, this study provides the knowledge of suitable nutrient for growth of BRB. These BRB can be further employed at large scale of effluent textile wastewater treatments systems for effective remediation.

Bovine rectal bacteria, nutrients, textile wastewater