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Performance Evaluation of Moringa Oleifera as Coagulant for Treating Abattoir Wastewater

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Abstract : In this paper, extract from raw Moringa Oleifera seeds for the treatment of 40 liters of abattoir wastewater was studied for a period of ten (10) weeks. A completely randomized design with loading dosages of 10, 12, 14, 16, 18, and 20g of processed Moringa Oleifera seed was used in the treatment. A control sample (with no Moringa Oleifera treatment) was also included. The physical and chemical properties of abattoir wastewater were investigated before and after treatment. The turbidity value was reduced drastically after the treatments from 15.40 to 7.63 mg/l for 16g dosage in week 7. Total alkalinity, Total hardness, Conductivity, Calcium, and Biological Oxygen Demand were all found to be reduced in concentration within the second and fourth weeks of the experiment with 14 to 16g of Moringa Oleifera dosage. The results generally showed that 16g/500ml of Moringa Oleifera was able to treat abattoir wastewater after weeks of the experiment.

Keywords : Moringa Oleifera, abattoir wastewater, turbidity, conductivity, pH
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