

COMPARATIVE STUDIES OF CRUDE AND DEFATTED MORINGA OLEIFERA SEEDS AS NATURAL COAGULANTS IN REMOVAL OF PHYSICAL, CHEMICAL AND BACTERIOLOGICAL PARAMETERS FROM TURBID RIVER WATER

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Abstract

There is a great concern about commercial coagulants and their residues in treated water which leads to Alzheimer disease in old people. For this reason, a lot of research is focused on plants with coagulating properties. A lot of interest is on *Moringa oleifera* a plant with clarifying properties, this study was aimed at investigating efficiency of crude and defatted *Moringa oleifera* seed in aiding removal of turbidity, chemical and bacteriological parameters from turbid Ndarugo river water. Conventional jar test apparatus was used in coagulation process. The optimum dosages was obtained at 175 mg/L and 150 mg/L which gave represented residual turbidity of 4.93 ± 0.31 and 3.27 ± 0.45 for crude *Moringa oleifera* seeds and defatted *Moringa oleifera* seeds respectively. Chemical and bacteriological parameters in treated water were reduced to below the levels recommended by NEMA and WHO. In conclusion, the study showed that defatted *Moringa oleifera* seed powder showed a good performance compared to crude *Moringa oleifera* seed powder. Therefore, it can be used as an alternative coagulant.