**Abstract**

Most people in the rural communities almost depend exclusively upon traditional sources of highly turbid and untreated pondwater for their domestic water needs. The present investigation was carried out to confirm the effectiveness of seed powder extracted from mature-dried Moringa oleifera seeds which are commonly available in most rural communities. The main objective of this work is to determine the suitability of Moringa oleifera as an alternative and cheap purification method in the improvement of water quality in terms of turbidity, pH and hardness. During this study, pond water samples were collected for treatment by Moringa seeds in powdered form and evaluated for the efficiency dose on pond water. After treatment of seed powder with water samples were analyzed for different physico-chemical parameters. All parameters were decreased with increasing dose of application of moringa seed powder. Hardness removal efficiency of Moringa oleifera was found to increase with increasing dosage.Application of Moringa oleifera seeds is biodegradable, environmentally friendly and non-toxic alternative which can be used in purification of pond water in rural communities.