

UASB-APT- Full scale UASB followed by different aerobic post treatment system treating domestic wastewater

Beni Lew¹, Abid Ali Khan², Rubia Zahid Gaur, A.A.Kazmi and Indu Mehrotra

¹The Volcani Center, Institute of Agriculture Engineering, Israel

²Indian Institute of Technology, India

Since late 1980s the Upflow Anaerobic Sludge Blanket (UASB) reactor based sewage treatment plants (STPs) were widely installed in India due to its low energy requirements, easy operation and maintenance (O&M), relatively good resource recovery in the form of methane gas generation and low excess sludge production. Presently more than 23 UASB based STPs were under operation and more than 20 UASB based STPs are under construction at different towns. This paper presents the treatment performance of ten UASB based STPs of different cities of North India. The STPs were categorized into three cases of study based on the nature of domestic “used water” e.g. sewage such as case I-normal sewage, case II-sewage with high sulphate concentration and case III-sewage containing high sulphate and high metals. The treatment performance of all UASB reactors in terms of BOD, COD and TSS were observed between 55 to 70% respectively. Whereas the post treatment units DHS and Aeration followed by ASP at two STPs were performing well and enables to achieve the required disposal standards.

Biography

Dr. Beni Lew is currently a senior research in the Volcani Center in the field of environmental systems related to the agricultural field. Beni has an expertise in pyrolysis systems and anaerobic systems for domestic wastewater treatment. He has published several papers in reputed journals in the anaerobic treatment for domestic wastewater and serving as an editorial board member of reputed.

Benilew@volcani.agri.gov.il