

Alfa stems (*stipatenacissima* L as substrate for water denitrification

A.L Benrachedi*, A. Selatnia, K. Benrachedi

Laboratoire de Technologie Alimentaire, Département de génie des procédés, Faculté des sciences de l'ingénieur, Université M'hamedBougarra de Boumerdes, Algerie.

*Corresponding author: Lokmanbenrachedi@yahoo.fr ; Tel.: +213 00 00 00 ; Fax: +21300 00 00

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ABSTRACT/RESUME

*Abstract: Biological denitrification of drinking water was studied in up-flow laboratory reactors packed with alfa stems (*stipatenacissima* L) which served as the sole carbon source as well as the only physical support for the microorganisms. The highest rates of denitrification were observed in fresh reactors during their first week of operation and the efficiency of the process declined thereafter. The addition of fresh alfa stems brought about a temporary improvement of the denitrification performance and a regime of one weekly addition prevented the deterioration of a reactor which was operated for 5 months. The rate of denitrification was affected by the water velocity and decreased at velocities above 0.054 m.d^{-1} . Colour and soluble organic carbon associated with fresh alfa stems removed by adsorption on powdered activated carbon*
